





CBSE SOCIAL SCIENCE SYLLABUS 2024-25 (Code No. 087) CLASS - IX & X

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RATIONALE

The purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper, and creative imagination, with sound ethical moorings and values. It aims at producing engaged, productive, and contributing citizens for building an equitable, inclusive, and plural society as envisaged by our Constitution. [NEP 2020, pages 4-5]

Social Science is a compulsory subject up to secondary stage of school education. It is an integral component of general education. Social Science can play a unique role within the school curriculum to enable the Knowledge, Capacities, and Values and Dispositions that underpin this purpose of education as committed to in NEP.

Social Science plays an important role in developing an integrated understanding of the human world and its functioning, including its deep interrelationships with nature and the environment in the quest to continuously improve as a society. In the study of this subject, students learn methods of observing and interpreting the human world, which helps them lead their own lives and also contribute as members of a society.

Social Science also helps in developing some of the Values and Dispositions that are essential for democratic participation — building and sustaining cooperation among communities that strive for peace, harmony, equity, and justice for all. It encourages them to understand and appreciate the feeling of Indianness 'Bhartiyata' by valuing the rich cultural heritage and tradition of the country.

Social Science plays an important role in developing in an individual student a comprehensive sense of the human world and its functioning. In an increasingly globalizing and interdependent world, this understanding is critical to help students see how things around them are changing, what are the causes of these changes, and how the change impacts human societies.

It also helps them realize the need for interdependence, collaboration, and an appreciation for the diversity of human culture and societies. The subject also teaches students the method of observing and interpreting the world wearing the hat of a social scientist. It does so by building core skills such as observing what is going on around them, analysing causes of various phenomena (historical, geographical, socio-political, or economic) using evidence, asking questions, making connections, forming viewpoints based on conceptual understanding and evidence, recognizing patterns and generalizations, and arriving at logical conclusions.

These skills prepare the students in contributing to the nation as a responsible citizen of society.

AIMS & OBJECTIVE

The aims of Social Science in school education can be summarised as follows: as per NCF-2023

a. Develop the disciplinary knowledge and understanding of how society functions through an interplay of historical, geographical, social, economic, and political factors.

This can be enabled through:

- i. an understanding of continuity and change in human civilisation, its causation and effect, and its impact on modern life,
- ii. an understanding of the interaction between nature and human beings, the spatial patterns arising out of this interaction, and its effect on human life.
- iii. awareness and understanding of the diversity of people and their practices in different societies, regions, and cultures within societies, iv.an awareness of various social, political, and economic institutions, their origin, functioning and transformations over time.
- b. Develop an understanding and appreciation for the methods of enquiry relevant to Social Science and deepen students' skills to engage with the key questions and issues confronting society.

These could be specifically seen as:

- i. Skills in sourcing evidence, interpreting them, confirming through multiple sources and evidence, and constructing a coherent narrative,
- ii. Skills in recognizing spatial patterns, map-reading, interpretation and analysis of various interconnected concepts and processes,
- iii. Skills of creative and analytical thinking to form informed opinions, demonstrate logical decision-making, and incline towards a problem-solving attitude,
- iv. Skills to collect, organize, analyse, represent, and present data and information on various historical, geographical, and socio-political issues,
- v. Skills to question unsubstantiated ideas, biases, stereotypes, and assumptions to foster scientific temper and propose meaningful responses to contemporary concerns of society.

c. Foster ethical, human, and Constitutional values:

As the DNEP 2019 emphasises, to foster a "democratic outlook and commitment to liberty and freedom; equality, justice, and fairness; embracing diversity, plurality, and inclusion; humaneness and fraternal spirit; social responsibility and the spirit of service; ethics of integrity and honesty; scientific temper and commitment to rational and public dialogue; peace; social action through Constitutional means; unity and integrity of the nation, and a true rootedness and pride in India with a forward-looking spirit to continuously improve as a nation.

CLASS IX COURSE STRUCTURE

History (I	ndia and the C	Contemporary World - I)	Suggestive no. of periods = 60	20 inclusive of Map pointing
Section	Chapter No	Chapter Name	No. of Periods	Marks allocated
	I	The French Revolution	15	
Events and Process	II	Socialism in Europe and the Russian Revolution	15	18+2 map pointing
	III	Nazism and the Rise of Hitler	15	
II	IV	Forest, Society and Colonialism		
Livelihoods, Economies		Interdisciplinary project as part of multiple assessments	5	
and Societies		(Internally assessed for 5 marks)		
	V	Pastoralists in the Modern World	10	
		(To be assessed as part of Periodic Assessment only)	10	
Geo	graphy (Conte	emporary India - I)	Suggestive no. of periods = 55	20 inclusive of Map pointing
Chapter No		Chapter Name	No. of periods	Marks allocated
1	India – Size and Location		17	
2	Physical Feat	tures of India		
3	Drainage		10	

Climat	e	12	47.0	
Natural Vegetation and Wildlife (Only map pointing to be evaluated in the annual examination.)			17+3 map pointing*	
		5		
Popula	tion	8	* Marks as mentioned above	
P	olitical Science (Democratic Politics - I)	Suggestive no. of periods = 50	20 Marks	
	Chapter name	No. of Periods	Marks allocated	
What i	s Democracy?	40		
Why D	emocracy?	10		
Consti	utional Design	10	20	
Electo	ral Politics	8		
Workin	g of Institutions	12		
Demo	cratic Rights	10		
	Economics	Suggestive no. of periods = 50	20 Marks	
lo.	Name of the Chapter	No. of Periods	Marks allocated	
	The Story of Village Palampur (To be assessed as part of Periodic Assessment only)	10		
	Natura (Only I Interdi (International Popular P What is Why D Constit Elector Workin	(Only map pointing to be evaluated in the annual examination.) Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks) Population Political Science (Democratic Politics - I) Chapter name What is Democracy? Why Democracy? Constitutional Design Electoral Politics Working of Institutions Democratic Rights Economics Name of the Chapter The Story of Village Palampur	Natural Vegetation and Wildlife (Only map pointing to be evaluated in the annual examination.) 3 Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks) 5 Population 8 Political Science (Democratic Politics - I) Chapter name No. of Periods What is Democracy? 10 Why Democracy? 10 Constitutional Design 10 Electoral Politics 8 Working of Institutions 12 Democratic Rights 10 Economics Io. Name of the Chapter The Story of Village Palampur 10	

2	People as Resource	10	
3	Poverty as a Challenge	15	20
4	Food Security in India	15	

CLASS IX COURSE CONTENT

	HISTORY: India and the Contemporary World - I									
Content	Curricular goals	Competency		Learning outcome		Suggestive Pedagogical				
						process				
Section I: Events and Processes Chapter-1 The French Revolution	CG-2 Analyses the important phases in world history and draws insight to understand the present-day world	c-2.1 Explains historical events and processes with different types of sources with specific examples from India and world history. c-2.4 Explains the growth of new ideas and practices across the world and how they affected the course of world history. c-2.5 Recognises the various practices that arose, such as those in c-2.4, and came to be condemned later on (such as racism, slavery, colonial invasions, conquests, and plunder, genocides, exclusion of women from democratic and other institutions), all of which have also impacted the course of world history and		The students will be able to Infer how the French Revolution had an impact on the European countries in the making of nation states in Europe and elsewhere. Will be able to Illustrate that, the quest for imperialism triggered the First World War. Will Examine various sources to address imbalances that may lead to revolutions.	A A A	address such imbalances and discriminations that lead to revolutions.				

		have left unhealed wounds.				
Chapter 2- Socialism in Europe and the Russian Revolution	CG-2 Analyses important phases of world history and draws insight to understand the present-day world	C-2.1 Explains historical events and processes with different types of sources with specific examples from India and world history. C-2.4 Explains the growth of new ideas in Europe and Asia and how it affected the course of human history	A A	situations that led to the establishment of Lenin's communism and Stalin's collectivization.	A A A	making of concept maps/role plays etc reflecting the situations which led to both revolutions. Flow chart reflecting how Lenin's communism /Stalin's collectivization wa established.
Chapter 3-Nazism and the Rise of Hitler.	CG-2 Analyses important phases of world history and draws insight to understand the presentday world	C-2.1 Explains historical events and processes with different types of sources with specific examples from India and world history. C-2.4 Explains the growth of new ideas in Europe and Asia and how it affected the course of human history.	A A A	Analyse the role of "Treaty of Versailles" in the rise of Hitler to power. Analyse the genocidal war waged against the "undesirables" by Hitler. Compare and contrast the characteristics of Hitler and Gandhi	A	film or animations can be shown followed by a discussion on the reasons for the rise and fall of Hitler.

		C-2.5 Recognises the various practices that arose, such as those in C-2.4, and came to be condemned later on (such as racism, slavery, colonial invasions, conquests, and plunder, genocides, exclusion of women from democratic and other institutions), all of which have also impacted the course of world history and have left unhealed wounds.		Role play/Dramatize the Characters-Hitler and Gandhi. Cartoon interpretations on these leaders.
Section II: Livelihoods, Economies and Societies Chapter 4 Forest Society and Colonialism	Inter Disciplinary Project with Chapter 5 of Geography "Natural Vegetation and Wildlife"	Refer Annexure II	Refer Annexure II	Refer Annexure II
Chapter 5 Pastoralists in the Modern World	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, cultural diversity, and biodiversity of the region	C-4.3 Draws interlinkages between various components of the physical environment, such as climate and relief, climate and vegetation, vegetation, and wildlife. C-4.4 Analyses and evaluates the interrelationship between	 Examine the situations that have created nomadic societies highlighting the key factor played by the climatic conditions and topography. Analyse varying patterns of developments within pastoral societies in 	 Locate the various pastoral communities on an outline map of India and explain cyclical movements of these according to climatic conditions. Audio Visual aids like documentaries on the various pastoral

		the natural environment and human beings and their cultures across regions and, in the case of India, the special environmental ethos that resulted in practices of nature conservation. C-4.5 Critically evaluates the impact of human interventions on the environment, including climate change, pollution, shortages of natural resources (particularly water), and loss of biodiversity; identifies practices that have led to these environmental crises and the measures that must be taken to reverse them	•	end the colonialism alists in India	> >	communities can be shown. Presentations comparing the lives of pastoralists and the colonial impact on pastoralists in India and Africa. T charts and similar graphic organizers to compare the lives of pastoralists in pre- and post-colonial periods. Think-pair and share can be practised to discuss various methods of colonial policies of exploitation and their impact on pastoralists of Africa and India.
	Polit	ical Science: Democratic	Politics - I			
Content	Curricular goals	Competency	Learning	outcome	S	uggestive Pedagogical
						process
	CG-5 Understands the	C-5.4 Analyses the	Examine	the concept		Brainstorming on

basic features of a

democratic government

- and its history in India

democracy and

structural

components of

forms/ features.

Democracy and its

Indian Constitution and

explores the essence

of Indian democracy

and the characteristics

1. What is Democracy?

Why Democracy?

of Democracy

introduction of concepts

of Democracy & features

	of a democratic government	and across the world – and compares this form of government with other forms of government	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Contrast working of democracies of India and North Korea and infer on their differences and significance in each country. Analyse and infer on the different historical processes and forces that have contributed for the promotion of democracy	AAA	4 corners strategy to discuss "What & why of democracy? students create democratic governance model in the class. Cartoon interpretation to summarize the benefits of democracy
2. Constitutional Design	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.1 Understands that the Indian Constitution draws from the great cultural heritage and common aspirations of the Indian nation, and recalls India's early experiments with democracy (assemblies in Mahajanapadas, kingdoms and empires at several levels of the society, guilds sanghas and ganas, village councils and committees, Uthiramerur inscriptions)	A A A	Group discussion and describe the situation that led to creation of Indian Constitution Enumerate the essential features that need to be kept in mind while drafting any constitution. Examine the guiding values that created the Indian constitution		Group Discussion to comprehend the purpose of constitution. Poster making/ wall magazine for Comparing and contrasting between Preamble of South African constitution with the preamble of Indian constitution. Declamation strategy for discussing the roles and responsibilities of citizens.

3. Electoral Politics	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.3 Explains that fundamental rights are the most basic human rights, and they flourish when people also perform their fundamental duties	A	implications of power of vote and power of recall. Summarize the essential features of the Indian Electoral system. Examine the rationale for adopting the present Indian Electoral System.	A A A A	elections for practical learning of the system. Design and present election manifesto. Create multiple parties and create symbols for elections. Use street play to create awareness about the right to vote and fundamental duties.
4. Working of Institutions	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.5 Analyses the critical role of non-state and non-market participants in the functioning of a democratic government and society, such as the media, civil society, socio-religious institutions, and community institutions	A	Examine the roles, responsibilities, and interdependency of all the 3 organs of the Government. Appreciate the parliamentary system of executive's accountability to the legislature. Summarize and evaluate the rule of law in India.	A A	Parliament and discuss the importance of question hour. Present Moot court to evaluate the rule of Law. Examine the relevant case studies to evaluate the rule of law conduct Mock Parliament session.

5. Democratic Rights	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.2 Appreciates fundamental Constitutional values and identifies their significance for the prosperity of the Indian nation.	A	Analyse the role of the responsible citizens. Summarize the importance of fundamental rights and duties in the light of the nation's glory. Recognize the role of a responsible citizen while performing their prescribed duties versus claiming rights.	A A A A	Debate the need to have rights in the light of study of Saudi Arabia. Case study to analyse the role of citizens when the rights are exercised or otherwise. Organize a moot court to discuss the violation of individual rights. Graphic organizer to summarize the coexistence of rights vs duties.
	G	eography: Contemporary	y Ind	dia - I		
Content	Curricular goals	Competency		Learning outcome		Suggestive Pedagogical process
1. India – Size and Location	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region.	C-4.1 Locates physiographic regions of India and the climatic zones of the world on a globe/map.		Examine how the location of an area impacts its climate and time with reference to longitude and latitude. Explore and analyses the trading and cultural relationships of India with its neighbouring countries. Evaluate the situation & reasons that made	A	On map of India Locate physiographic regions of India and the climatic zones of the world on a globe/map. Use GeoGebra, Google earth to represent and justify the reasons for the differences in climatic conditions, local and standard time. Brainstorming strategy for inferring conditions

			A	82.5E* longitude as Time meridian of India. Examine how location of India enables its position as a strategic partner in the subcontinent. Justify the reasons for the differences in climatic conditions, local and standard time.	A	and relationships of the people living in states that are sharing border with the neighbouring countries impact trade and culture. Make a PPT presentation on the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region.
2. Physical Features of India	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region.	C-4.2 Explains important geographical concepts, characteristics of key landforms, their origin, and other physical factors of a region	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Justify how the Physical Features of India influences the livelihoods, culture, and the biodiversity of the region. Examine the geological process that played a crucial role in the formation of diverse physical features in India. Analyse the conditions and relationships of the people living in different physiographic areas.	A A A	Use Art integrated strategies like gallery walk/Model making to demonstrate how physical features make India a sub-continent. Group work to discuss the lives and relationships amongst physiographic areas. Brainstorming and make a comparison of India's Physical features with another country. presentation using different modes such as

			>	Examine various environmental issues.		Journals, Collage and other references.
3.Drainage	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region	C-4.5 Critically evaluates the impact of human interventions on the environment, including climate change, pollution, shortages of natural resources (particularly water), and loss of biodiversity; identifies practices that have led to these environmental crises and the measures that must be taken to reverse them	A	Examine the information about different lakes and infer on their contribution to Indian ecology. Present creative solutions to overcome the water pollution also to increase the contribution of water bodies to Indian economy. Identify the river systems of the country and explain the role of rivers in human society	AA	Choice Board strategy where each group to take up one river and focus on the areas they serve and the impact on Economy of that area. Students will prepare a chart on lakes. Slogan writing, poster making/ save River songs/ to bring awareness on water pollution and suggest solutions
4. Climate	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region	C-4.3 Draws interlinkages between various components of the physical environment, such as climate and relief, climate and vegetation and wildlife	A A	Analyse and infer the effect of monsoon winds on rainfall of the Indian subcontinent. Analyse the temperatures between plateau region, Himalayan region, desert region and coastal region. Enumerate and summarize the reasons for the wide difference between temperatures at different	A A	Use Mind map/ graphic organizers to enumerate and summarize the reasons for the wide difference between the day and night temperatures at different geographical locations of India. Collect Newspaper reports for knowing the weather status. Prepare and present mock drills on climate change and protocols as

			geographical locations of India	preventive action for various disasters
5. Natural Vegetation and Wildlife.	Inter disciplinary project	Inter disciplinary project with chapter no IV of History "Forest, Society and Colonialism	Refer annexure II	Refer annexure II
6. Population	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region	C-4.6 Develops sensitivity towards the judicious use of natural resources (by individuals, societies, and nations) and suggests measures for their conservation	 Analyse and infer the reasons behind the uneven distribution of population in India with specific reference to UP & Rajasthan and Mizoram and Karnataka Enlist the factors that affect the population density 	 Use a Pie -diagram to depict the population distribution in India. Group discussion and presentation on reasons behind the uneven distribution of Population
		ECONOMICS		0 " 0 "
Content	Curricular goals	Competency	Learning outcome	Suggestive Pedagogical process
Chapter 1: The Story of Village Palampur	CG-7 Develops an understanding of the economy of a nationstate, with specific reference to India.	C-7.1 Defines key features of the economy such as production, distribution, demand, supply, trade, and commerce, and factors that influence these aspects (including technology).	 Enlist the requirements of production and comprehend the interdependence of these requirements. Corelate farming and non-farming activities to economic growth. Comprehend how the significance of conditions of farming 	 Visit to a nearby village or local markets and interview different classes of farmers to know about their lifestyles and thereafter present in the class. Concept map/Poster making/ gallery walk to enlist the factors of production and

		C-7.2 Evaluates the importance of the three sectors of production (primary, secondary, and tertiary) in any country's economy, especially India.	>	and the factors of production impact economic development. Find solutions to foster an equitable society.	A	evaluate their interdependence. Discussion/PPT presentation on how to eradicate poverty among farmers and trying to suggest innovative strategies to improve the farmers lifestyles.
Chapter -2 People as Resource	CG-7 Develops an understanding of the economy of a nation, with specific reference to India.	C-7.2 Evaluates the importance of the three sectors of production (primary, secondary, and tertiary) in any country's economy, especially India.	A A	Evaluate the reasons that contribute to the quality of population. Observe the different government schemes in some states and see its effect on the quality of people there by. Propose innovative strategies to resolve unemployment problems.	A	Classroom discussions/debates on various factors that affect the quality of population. For e.g. significance of Education/Health in Human Resource Development. Make a newsletter collecting articles from newspapers/magazines etc on illiteracy and unemployment status in India and government initiative in solving the issues. Audio-Visual aids showing initiatives undertaken by the government in promoting education

Chapter 3 Poverty as a challenge	CG-8 Evaluates the economic development of a country in terms of its impact on the lives of its people and nature.	analyses data related to poverty and unemployment in one's locality and at the national level. C-8.2 Understands and analyses the concepts	 Comprehend the reasons of poverty in the rural and urban areas. Evaluate the efficacy of government to eradicate poverty. Compare how poverty estimates have transformed from 	and employment in various states of India. PPT presentation using case study given in NCERT text on the reasons of rural and urban poverty. Declamation with data to evaluate the efficacy of government to eradicate poverty and suggest measures/
		locality and at the national level. C-8.2 Understands and analyses the concepts and practice of the	of government to eradicate poverty. Compare how poverty estimates have transformed from	Declamation with data to evaluate the efficacy of government to eradicate poverty and suggest measures/
		range of economic systems – from free market to entirely state controlled markets. C-8.4 Describes India's recent path towards again becoming one of	1993-94 to 2011-12. Corelate the link between education and poverty.	ways which can be used to minimise the same.Debate on the topic-'Can education remove poverty?'
		the three largest economies of the world, and how individuals can contribute to this economic progress		

Chapter 4 Food	CG-8 Evaluates the	C-8.2 Understands and	>	Comprehend various	>	Case study and group
Chapter 4 Food Security in India	CG-8 Evaluates the economic development of a country in terms of its impact on the lives of its people and nature.	analyses the concepts and practice of the range of economic systems – from free market to entirely state controlled markets. C-8.4 Describes India's recent path towards again becoming one of the three largest economies of the world, and how individuals can contribute to this	>	aspects of food security that will ensure continuity of supply to the masses. Enumerate the different features of PDS that directly address FSI. Analyse and infer the impact of Green Revolution. Analyse the causes and impact of famines/disasters in	A A	Case study and group discussion to connect the link between a well-structured food security system and continuity of supply to masses. Guest Speaker programmes where govt. officials can be called to talk on FSI and PDS (Public Distribution System) Panel Discussion /seminar on the impact of the green revolution and PDS.
		economic progress. C-8.5 Appreciates the connections between economic development		famines/disasters in food security during pre and post independent India.	>	and PDS. Concept maps
						explaining the causes behind the famines in the colonial period and
		and the environment, and the broader indicators of societal				the causes and impact of recurring disasters on food security in post
		wellbeing beyond GDP growth and income.				independent India through examples.

CLASS IX LIST OF MAPS

S. No.	Subject	Name of the Chapter	List of Areas to be located /labeled/identified on the map		
I	History	French Revolution	Outline political map of France. Locate/label/identify. • Bordeaux, Nantes, Paris and Marseille		
		Socialism in Europe and the Russian Revolution	Outline political map of the World. Locate/label/identify Major countrie		
		Nazism and the Rise of Hitler	Outline Political Map of World. Locate/label/identify Major countries of Second World War Axis: Powers – Germany, Italy, Japan Allied Powers – UK, France, Former USSR, USA		
II	Geography	India: size and location	 India – States and Capitals Tropic of Cancer, Standard Meridian (Location and Labeling) Neighbouring Countries 		
		India physical features	 Mountain Ranges: The Karakoram, The Zanskar, The Shivalik, The Aravali, The Vindhya, The Satpura, Western and Eastern Ghats Mountain Peaks – K2, Kanchan Junga, Anai Mudi Plateau – Deccan Plateau, Chota Nagpur Plateau, Malwa Plateau Coastal Plains – Konkan, Malabar, Coromandel & Northen Circar (Location and Labelling) 		
		Drainage system	 Rivers (Identification only) The Himalayan River Systems – The Indus, The Ganges and The Sutlej The Peninsular Rivers – The Narmada, The Tapti, The Kaveri, The Krishna, The Godavari, The Mahanadi Lakes – Wular, Pulicat, Sambar, Chilika 		
		Climate	Annual rainfall in India, Monsoon wind direction		
		Population	Population density of all states		
			The state having highest and lowest density of population		

CLASS IX
INTERNAL ASSESSMENT: 20 MARKS

Type of Assessment	Description	Marks Allocated
Periodic Assessment	Pen Paper Test	5
Multiple Assessment	Quiz, debate, role play, viva, group discussion, visual expression, interactive bulletin boards, gallery walks, exit cards, concept maps, peer assessment, self-assessment etc. through inter disciplinary project	5
Subject Enrichment Activity	Project work on Disaster Management	5
Portfolio	Classroom, work done (activities/assignments) reflections, narrations, journals etc. Achievements of the student in the subject throughout the year Participation of the student in different activities like Heritage India quiz etc.	5

CLASS IX PRSECRIBED TEXT BOOKS

S. No.	Subject	Name of the Book	Publisher
1	History	India and the Contemporary World-I	NCERT
2	Political Science	Democratic Politics-I	NCERT
3	Geography	Contemporary India-I	NCERT
4	Economics	Economics	NCERT
5	Disaster Management	Together, towards a safer India- Part II	CBSE

Note: Please procure latest reprinted edition (2024-05) of prescribed NCERT textbooks.

CLASS COURSE STRUCTURE

H	History (India a	and the Contemporary World-II)	Suggestive no. of periods = 60	20 inclusive map pointing
Section	Chapter No.	Chapter name	No. of periods	Marks allocated
I	I	The Rise of Nationalism in Europe	17	
Events and processes	II	Nationalism in India	17	18+2 map pointing
II Livelihoods, Economies and Societies	III	The making of a Global World (To be evaluated in the Board Examination Subtopics: 1 to 1.3 Pre Modern World to Conquest, Disease and trade)	6	
		Interdisciplinary project as part of multiple assessments (internally assessed for 5 marks) Subtopics 2 to 4.4 -The nineteenth century (1815-1914) to end of Bretton Woods & the beginning of "Globalization"	4	
	IV	The Age of Industrialization (To be assessed as part of Periodic Assessment only)	6	
III Everyday Life, Culture and politics	V	Print Culture and the Modern world	10	
	Geograp	hy (Contemporary India-II)	Suggestive no. of periods = 55	20 inclusive map pointing
Chapter No.	Chapter name		No. of periods	Marks allocated
1	Resources and Development		7	
2	Forest and W	ildlife Resources	7	

3	Water res	sources	7	17+3 map pointing
4 Agricultu		re	10	
5	Minerals	and energy Resources	10	
6	Manufact	uring Industries	10	
7		of National Economy o pointing to be evaluated in the Board Examination	2	
		Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks)		
	Political Science (Democratic Politics-II)		Suggestive no. of periods = 50	20
Unit No.	Chapter No.	Chapter name	No. of periods	Marks allocated
1	1	Power-sharing	15	
	2	Federalism		20
II	3	Gender, Religion and Caste	12	
III	4	Political Parties	12	
IV	5 Outcomes of Democracy		11	
	Economics (Inderstanding Economic Development)	Suggestive no. of periods = 50	20
Chapter	No.	Chapter name	No. of periods	Marks allocated

1	Development	12	
2	Sectors of the Indian Economy	12	20
3	Money and Credit	12	
4	Globalization and the Indian Economy	8	
	To be evaluated in the Board Examination		
	What is Globalization?Factors that have enabled Globalization		
	Interdisciplinary project as part of multiple assessment	6	
	(Internally assessed for 5 marks)		
	 Production across the countries 		
	Chinese toys in India		
	 World Trade Organization 		
	 The Struggle for a Fair Globalization 		
5	Consumer Rights (Project Work)		

CLASS X COURSE CONTENT

	HIST	ORY: India and the Conte	mporary World - II	
Content	Curricular goals	Competency	Learning outcome	Suggestive Pedagogical process
I The Rise of Nationalism in Europe	CG-2 Analyses important phases in world history and draws insight to understand the present - day world. CG-3 Understands the idea of a nation and the emergence of the modern Indian Nation	C-2.4 Explains the growth of new ideas in Europe and Asia (humanism, mercantilism, industrialisation, colonialism, scientific developments and explorations, imperialism, and the rise of new nation-states across the world) and how it affected the course of human history. C-2.5 Recognises the various practices that arose, such as those in C-2.4, and came to be condemned later on (such as racism, slavery, colonial invasions, conquests, and plunder, genocides, exclusion of women from democratic and other institutions), all of	 Infer how the French Revolution had an impact on the European countries in the making of nation state. Comprehend the nature of the diverse social movements of the time. Analyse and infer the evolution of the idea of nationalism which led to the formation of nation states in Europe and elsewhere. Evaluate the reasons which led to the First World War. 	 Presentation and discussion on the French Revolution after watching animations/films/reading stories or novels related to French revolution. Use of graphic organizers to explain unification of states to form one nation. Map activity familiarising the location of various places studying the map of Europe after the Congress of Vienna 1815 and locating important places on the political outline map of Europe. World Café on changes after 1815 in Europe. Role play on the social revolutions of Europe

Il Nationalism in India	CG-3 Understands the idea of a nation and the emergence of the modern Indian Nation.	which have also impacted the course of world history and have left unhealed wounds. C-3.2 Identifies and analyses important phases of the Indian national freedom struggle against British colonial rule, with special reference to the movement led by Mahatma Gandhi and other important figures as well as those that led to independence, and understands the specific Indian concepts, values, and methods (such as Swaraj, Swadeshi, passive resistance, fight for dharma self-sacrifice, ahimsa) that played a part in achieving Independence.	A	Illustrate various facets of Nationalistic movements that ushered in the sense of Collective Belonging. Evaluate the effectiveness of the strategies applied by Gandhiji and other leaders in the movements organised by him. Summarise the effects of the First World War that triggered the two defining movements (Khilafat &Non Cooperation Movement) in India	AAA	Sequence chart/ story Board/ Story telling pedagogy to Illustrate various facets of Nationalistic movements that ushered in the sense of Collective Belonging Students will examine textual content and other references and Present through PPT. Viewing the relevant Snippets from the movies/ video clippings depicting various events involving Gandhiji and other leaders and present findings
III. The Making of a Global World	CG-7 Develops an understanding of the economy of a nation, with specific reference to	C-2.3 Traces aspects of continuity and change in different phases of world history (including	\	Summarize the changes that transformed the world in terms of economy,	>	Initiate an Inquiry based learning using world café' strategy and present your findings through café
Subtopic 1 The premodern world	India.	cultural trends, social and religious reforms, and		political, cultural and technological areas.		conversation strategy of each area (transformed the world in terms of economy, political,

Subtopic 2 19 th century 1815 -1914 Subtopic 3 The inter- war economy Subtopic 4 Rebuilding of world economy: the post war era.		economic and political transformations) C-7.4 Traces the beginning and importance of largescale trade and commerce (including ecommerce) between one country and another – the key items of trade in the beginning, and the changes from time to time.	A	Depict the global interconnectedness from the Premodern to the present day. Enumerate the destructive impact of colonialism on the livelihoods of colonised people. Refer Annexure IV	A	cultural and technological aspects.) Art integration and gallery walk to depict the interconnectedness. Students examine the photographic display/ new paper cutting that depict the destructive impact of colonialism on the livelihoods of colonised people and present their understandings in the form of Newsletter/ cartoon strips/ Inter
Inter disciplinary Project with chapter 7 of Geography: Lifelines of National Economy and chapter 4 of Economics: Globalization and the Indian Economy		Refer Annexure IV				Cartoon strips/ Inter Disciplinary Project
IV The Age of Industrialisation	CG-2 Analyses the important phases in world history and draws insights to understand the present-day world	C-2.4 Explains the growth of new ideas and practices across the world (including humanism, mercantilism,	>	Watch relevant Videos/ Visuals/ documentaries/ the movie clippings on features of Pre & Post economic, political,	A	Enumerate economic, political, social features of Pre and Post Industrialization. Analyse and infer how the industrialization impacted

		industrialisation, scientific developments and explorations, imperialism, colonialism, the rise of new nation-states across the world, and various technologies including the most current) and how they affected the course of world history		social features of Pre and Post Industrialization		colonies with specific focus on India
V Print culture and the Modern World	CG-2 Analyses the important phases in world history and draws insights to understand the present-day world. CG-9 Understands and appreciates the contribution of India through history and present times, to the overall field of Social Science, and the disciplines that constitute it	C-2.4 Explains the growth of new ideas and practices across the world (including humanism, mercantilism, industrialisation, scientific developments and explorations, imperialism, colonialism, the rise of new nation-states across the world, and various technologies including the most current) and how they affected the course of world history.	A A	Enumerate the development of Print from its beginnings in East Asia to its expansion in Europe and India. Comment on the statement that the print revolution was not just a way of producing book but profound transformation of people. Compare and contrast the old tradition of handwritten manuscripts versus the print technology. Summarise the role of Print revolution and its impact	AAAA	Flow chart to depict the development of Print. Declamation on the profound transformation of people due to the print revolution. Use of Venn diagram to compare the advantages of handwritten books and the printed books Interpret and infer from pictures, cartoons, extracts from propaganda literature on important events and issues with focus on print culture.

	Political Science: Democratic Politics - II								
Content	Curricular goals	Competency		Learning outcome		Suggestive Pedagogical process			
1.Power - sharing	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.4 Analyses the basic features of a democracy and democratic government – and its history in India and across the world – and compares this form of government with other forms of government	A A A	Enumerate the need for power sharing in democracy. Analyse the Challenges faced by countries like Belgium and Sri Lanka ensuring effective power sharing. Compare and contrast the power sharing of India with Sri Lanka and Belgium. Summarize the purpose of power sharing in preserving the unity and stability of a country	AAAAA	Read relevant Newspaper articles/ clippings on Power sharing and present the findings in the form of flow chart. Discuss various forms of power-sharing. Classroom discussion on challenges faced by Belgium& Sri Lanka in ensuring effective power sharing. Socratic discussion on Power Sharing Techniques used by India, Sri Lanka and Belgium.			
2 Federalism	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.2 Appreciates fundamental Constitutional values and identifies their significance for the prosperity of the Indian nation	AA	Infer and appreciate how federalism is being practised in India. Analyse and infer how the policies and politics that has	A	Group discussion on the distribution of powers between Union and state Government and present the outcomes through presentations. Debate on policies and politics that strengthens Federalism in			

				strengthens federalism in practice.		practice and present through mind map
3.Gender, Religion and Caste	CG-6 Understands and analyses social, cultural, and political life in India over time – as well as the underlying historical Indian ethos and philosophy of unity in diversity – and recognises challenges faced in these areas in the past and present and the efforts (being) made to address them	C-6.2 Understands that, despite C-6.1, forms of inequality, injustice, and discrimination have occurred in different sections of society at different times (due to internal as well as outside forces such as colonisation), leading to political, social, and cultural efforts, struggles, movements, and mechanisms at various levels towards equity, inclusion, justice, and harmony, with varying outcomes and degrees of success.	A A	Examines the role and differences of Gender, religion and Caste in practicing Democracy in India. Analyses the different expressions based on these. differences are healthy or otherwise in a democracy	A	Skit/ street play to enumerate how the differences in gender, religion and caste impact the practicing healthy or otherwise in a Democracy. Graphic method to analyse and infer how different expressions based on differences in Gender, Religion and Caste are healthy or unhealthy in a democracy
4.Political Parties	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.3 Explains that fundamental rights are the most basic human rights, and they flourish when people also perform their fundamental duties		Understand the process of parties getting elected. Know the significance of right to vote and exercise the duties as citizen of nation. Examine the role, purpose and no. of Political Parties in Democracy.		 Mock election to learn the process. Role play and create awareness of fundamental duties. Use flow chart to bring out the role, purpose and no. of Political Parties. Read newspapers, watches video clippings to justify the contributions /non contributions made by

5.Outcomes of Democracy	CG-5 Understands the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government	C-5.5 Analyses the critical role of non-state and non-market participants in the functioning of a democratic government and society, such as the media, civil society, socio-religious institutions, and	contributions /non contributions made by national and regional political parties in successful functioning of Indian democracy. Enumerates how a success of democracy depends on quality of government, economic wellbeing, in equality, social differences, conflict, freedom and dignity.	parties in successful functioning of Indian democracy. Graphic organizer to enumerates how a success of democracy depends on quality of government, economic wellbeing, in equality, social differences, conflict, freedom and dignity.
		community institutions.		
		Geography: Contempo	rary India - II	
Content	Curricular goals	Competency	Learning outcome	Suggestive Pedagogical process
1.Resources and Development	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region	C-4.4 Analyses and evaluates the interrelationship between the natural environment and human beings and their cultures across regions and, in the case of India, the special environmental ethos	Enumerates how the resources are interdependent, justify how planning is essential in judicious utilization of resources and the need to develop them in India.	 Brainstorming on how the resources are interdependent in nature and the need to develop them in India and present in the form of a Venn diagram. Use of maps, charts, and other tools to identify patterns and trends of land utilization.

		that resulted in practices of nature conservation	>	Infers the rationale for development of resources. Analyse and evaluate data and information related to non-optimal land, utilization in India Appraise and infer the need to conserve all resources available in India. suggest remedial measures for optimal utilization of underutilized resources	A	Case study and debate on the topic "Is the development acting as an adversary for conservation". Present a report in the form of PPT.
2. Forest and Wildlife Resources	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region	C-4.6 Develops sensitivity towards the judicious use of natural resources (by individuals, societies, and nations) and suggests measures for their conservation	A	Examine the importance of conserving forests and wildlife and their interdependency in maintaining the ecology for the sustainable development of India. Analyse the role of grazing and wood cutting in the development and degradation	A A	Read newspaper articles/ watch videos on deforestation and need for conservation and through world café strategy present your findings. Discuss how developmental works, grazing wood cutting have impacted on the survival forests Use art integration strategy to summarize and present the reasons for conservation of biodiversity in India under sustainable development.

			>	Summarizes the reasons for conservation of biodiversity in India under sustainable development.		
3.Water Resources	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region.	C-4.2 Explains important geographical concepts, characteristics of key landforms, their origin, and other physical factors of a region.	A	Examine the reasons for conservation of water resource in India. Analyse and infer how the Multipurpose projects are supporting the requirement of water in India.	A	Brainstorming session to discuss the scarcity of water and present through graphic organizers. Prepare a PPT to Summarize the roles of Multipurpose projects in supporting the water requirement of India
4. Agriculture	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region	C-4.3 Draws interlinkages between various components of the physical environment, such as climate and relief, climate and vegetation, vegetation, and wildlife	A	Examine the crucial role played by agriculture in our economy and society. Analyses the challenges faced by the farming community in India. Identifies and summarizes various aspects of agriculture, including crop production,	A A A	Group Discussion on the challenges faced by farmers, such as low productivity, lack of modern technology, inadequate irrigation facilities, and post-harvest losses and present the findings through PPT/chart. Collect Newspaper and have a panel discussion on the challenges faced by the farming community in India Use of graphic organizers to distinguish the traditional and modern farming methods

			\ \ \	types of farming, modern agricultural practices, and the impact of agriculture on the environment. Analyses the challenges faced by the farming community in India		
5. Minerals and Energy Resources	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, culture, and the biodiversity of the region	C-4.6 Develops sensitivity towards the judicious use of natural resources (by individuals, societies, and nations) and suggests measures for their conservation.	A A	Differentiates between the conventional and nonconventional sources of energy. Analyses the importance of minerals and natural resources for economic development of the country. Suggests strategies for sustainable use of natural resources	A	Use graphic organizers to infer the resource distribution to real-world situations and lists the strategies for sustainable use of natural resources. Use of flow chart to Differentiate between the conventional and nonconventional sources of energy
6.Manufactur-ing Industries	CG-4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the	C-4.5 Critically evaluates the impact of human interventions on the environment, including climate change, pollution, shortages of natural resources (particularly water), and	\	Enumerates the impact of manufacturing industries on the environment and develop strategies for sustainable development of the	A	Use of flow chart to differentiate between various types of manufacturing industries based on their input materials, processes, and end products. Utilizes the textual information (data given through various

7.Life Lines of National	livelihoods, culture, and the biodiversity of the region	loss of biodiversity; identifies practices that have led to these environmental crises and the measures that must be taken to reverse them Inter disciplinary project with chapter 3 of History:	manufacturing sector. Differentiates between various types of manufacturing industries based on their input materials, processes, and end products, and analyse their significance in the Indian economy. Analyses the relation between the availability of raw material and location of the industry Refer Annexure IV	maps/ graphs) to enumerate the impact of manufacturing industries on the environment and develop strategies for sustainable development of the manufacturing sector. > Uses case studies to Infer the relation between availability of raw material and location of the industry. Refer Annexure IV
Economy		The making of a Global world and chapter 4 of Economics: Globalization and the Indian Economy		
	Econ	omics: Understanding Ec	onomic Development	
Content	Curricular goals	Competency	Learning outcome	Suggestive Pedagogical process
1 Development	CG-8 Evaluates the economic development of a country in terms of	C-8.1 Gathers, comprehends, and analyses data related to income, capital, poverty,	 Enumerate and examine the different processes involved in setting 	 Hot seat strategy to enumerate different developmental Goals that helps in nation building.

	1				_	
	its impact on the lives of its people and nature.	and employment in one's locality, region and at the national level. C-8.4 Describes India's recent path towards again becoming one of the three largest economies of the world, and how individuals can contribute to this economic progress. C-8.5 Appreciates the connections between economic development and the environment, and the broader indicators of societal wellbeing beyond GDP growth and income.	A	developmental Goals that helps in nation building. Analyse and infer how the per capita income depicts the economic condition of the nation. Evaluate the development goals that have been set for the nation by the Planning commission of India -with specific reference to their efficacy, implemental strategies, relevance to current requirements of the nation. Compare and contrast the per capita income of some countries and infer reasons for the variance. Analyses the multiple perspectives on the need of	A	Case study to analyse and infer how the per capita income depicts the economic condition of the nation. Graphic organizer to compare the t relation between HDI (Human Development Index) and PCI (Per Capita National Income) Declamation to Analyse the multiple perspectives on the need of development. Debate on 'Health and Education are the true indicators of development.'
				development.		
	CG-7 Develops an	C-7.1 Defines key	>	Analyses and infer	>	Data analysis of various
2	understanding of the	features of the economy		how the economic		sectors and their contribution

Sectors of the Indian Economy

economy of a nation, with specific reference to India

such as production, distribution, demand. supply, trade, and commerce, and factors that influence these aspects (including technology) C-7.2 Evaluates the importance of the three sectors of production (primary, secondary, and tertiary) in any country's economy, especially India C-7.3 Distinguishes between 'unorganised' and 'organised' sectors of the economy and their role in production for the local market in small. medium, and large-scale production centres (industries), and recognises the special importance of the socalled 'unorganised' sector in Indian economy and its connections with the self-organising features of Indian society.

- activities in different sectors contribute to the overall growth and development of the Indian economy.
- Propose solutions to identified problems in different sectors based on their understanding.
- Summarize how the organised and unorganised sectors are providing employment and the challenges faced by them.
- ➤ Enumerates the role of unorganised sector in impacting PCI (Per Capita Income) currently and proposes suggestive steps to reduce the unorganised sector for more productive contributions to GDP.
- Enumerates and infer the essential role of the Public and Private sectors

- in GDP (Gross domestic Product) and NDP (Net Domestic Product).
- Research based strategy to propose solutions to identified problems in different sectors based on their understanding.
- Read Newspaper articles and group discuss to Summarize how the organised and unorganised sectors are providing employment and the challenges faced by them.
- Role plays of case studies explaining underemployment/disguised unemployment.
- Class conversation/group discussion on how to create more employment.

3 Money and Credit	CG-8 Evaluates the economic development of a country in terms of its impact on the lives of its people and nature.	C-8.1 Gathers, comprehends, and analyses data related to income, capital, poverty, and employment in one's locality, region and at the national level. Markets. C-8.3 Understands these features in the context of ancient India, with its thriving trade, both internal and external, and its well-established trade practices and networks, business conventions, and diverse industries, all of which made India one of the world's leading	A A	the present trends of PPP and efficacy of the initiative. Enumerate how money plays as a medium exchange in all transactions of goods and services since ancient times to the present times. Analyse and infer various sources of Credit. Summarizes the significance and role of self-help groups in the betterment of the economic condition of rural people/women.	AAA	Group discussion to Enumerate how money plays as a medium exchange in all transactions of goods and services since ancient times to the present times. Case based study to Analyse and infer various sources of Credit. Guest Speaker Programme (bank manager/ a self-help group member) who will summarize the significance and role of self-help groups in the betterment of the economic condition of rural people/ women.
		of which made India one of the world's leading economies up to the colonial period				
4 Globalization and the Indian Economy Subtopics:	CG-7 Develops an understanding of the economy of a nation, with specific reference to India. CG-8 Evaluates the economic development of a country in terms of its impact on the lives	society C-7.4 Traces the beginning and importance of large-scale trade and commerce (including e-commerce) between one country and another – the key items of trade in the beginning, and the	A	Enumerate the concept of globalization and its definition, evolution, and impact on the global economy. Evaluate the key role of the key major drivers of	A	Watch videos on globalisation followed by an interactive group discussion to enumerate the concept of globalization and its definition, evolution, and impact on the global economy. Read Textual and other resources to analyse and infer

What is Globalization? Factors that have enabled Globalisation.	of its people and nature	changes from time to time. C-8.3 Understands these features in the context of ancient India, with its thriving trade, both internal and external, and its well-established trade practices and networks, business conventions, and diverse industries, all of which made India one of the world's leading economies up to the colonial period.	globalization and their role in shaping the global economic landscape in various countries. Comprehends the significance of role of G20 and its significance in the light of India's present role.	the key drivers of globalization and their role in shaping the global economic landscape. Discussions /Debates on the positive impact of Globalization on the lives of people.
Inter disciplinary Project with chapter 3 of History: "The making of a Global World".and chapter 7 of Geography: "Lifelines of National Economy" Subtopics: Production across the countries		Refer Annexure IV		

Chinese toys in India				
World Trade Organization				
The Struggle for A Fair Globalisation				
5	Project work	Refer Annexure III	Refer Annexure III	
Consumer Rights OR Social Issues OR Sustainable Development				

CLASS X LIST OF MAP ITEMS

Subject	Name of the Chapter	List of areas to be located/labeled/identified on the map
History	Nationalism in India	I. Congress sessions:
		1920 Calcutta
		• 1920 Nagpur
		1927 Madras session
		II. 3 Satyagraha movements:
		Kheda
		Champaran
		Ahmedabad mill workers
		III. Jallianwala Bagh
		IV. Dandi March
Geography	Resources and Development	Identify Major Soil Types
	Water Resources	Locating and Labeling:
		Salal
		Bhakra Nangal
		Tehri
		Rana Pratap Sagar
		Sardar Sarovar
		Hirakund
		Nagarjun Sagar
		Tuhgabhadra
	Agriculture	Identify:
		Major areas of Rice and Wheat
		 Largest/Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton and
		Jute
	Minerals and Energy	
	Resources	a. Iron Ore mines
		Mayurbhanj
		Durg

	Bailadila
	Bellary
	Kudremukh
	b. Coal Mines
	Raniganj
	Bokaro
	Talcher
	Neyveli
	c. Oil Fields
	Digboi
	Naharkatia
	Mumbai High
	Bassien
	Kalol
	 Ankaleshwar
	Locate and label: Power Plants
	a. Thermal
	Namrup
	Singrauli
	Ramagundam
	b. Nuclear
	Narora
	Kakrapara
	Tarapur
	Kalpakkam
Manufacturing Industries	I. Manufacturing Industries
	(Locating and labeling only)
	Cotton textile Industries: a. Mumbai, b. Indore, c. Surat, d. Kanpur, e.
	Coimbatore

	• Iron and Steel Plants: a. Durgapur, b. Bokaro, c. Jamshedpur, d. Bhilai, e.
	Vijayanagar, f. Salem
	 Software technology Parks: a. Noida, b. Gandhinagar, c. Mumbai, d. Pune,
	e. Hyderabad, f. Bengaluru, g. Chennai, h. Thiruvananthapuram
Lifelines of National Economy	Locating and Labeling:
	a. Major Sea Ports
	Kandla
	Mumbai
	Marmagao
	New Mangalore
	Kochi
	Tuticorin
	Chennai
	 Visakhapatnam
	Paradip
	Haldia
	b. International Airports
	 Amritsar (Raja Sansi-Sri Guru Ram Dasjee)
	Delhi (Indira Gandhi)
	 Mumbai (Chhatrapati Shivaji)
	Chennai (Meenam Bakkam)
	 Kolkata (Netaji Subhash Chandra Bose)
	Hyderabad (Rajiv Gandhi)

Note: Items of Locating and Labelling may also be given for Identification.

CLASS X QUESTION PAPER DESIGN

Subject Wise Weightage

Subject	Syllabus	Marks (80)	Percentage
History	 The Rise of Nationalism in Europe. Nationalism in India: The Making of a Global World Sub topics1 to 1.3 Print Culture and the Modern World Map pointing 	18+2	25%
Political Science	 Power – sharing Federalism Gender, Religion and Caste Political Parties Outcomes of Democracy 	20	25%
Geography	 Resources and Development Forest and Wildlife Resources Water Resources Agriculture Mineral& Energy resources Manufacturing industries. Lifelines of National Economy (map pointing) Map pointing 	17+3	25%
Economics	 Development Sectors of the Indian Economy Money and Credit Globalization and The Indian Economy Sub topics: What is Globalization? Factors that have enabled Globalisation 	20	25%

Weightage to Type of Questions

Type of Questions	Marks (80)	Percentage
Mark MCQs (20x1) (Inclusive Of Assertion, Reason, Differentiation &Stem)	20	25%
2 Marks Narrative Questions (4x2) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	8	10%
3 Marks Narrative Questions (5x3) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	15	18.75%
4 MARKS Case Study Questions (3x4) (Knowledge,Understanding,Application,Analysis,Evaluation,S ynthesis & Create)	12	15%
5 Mark Narrative Questions (4x5) (Knowledge,Understanding,Application,Analysis,Evaluation,S ynthesis & Create)	20	25%
Map Pointing	5	6.25%

Weightage to Competency Levels

Sr. No.	Competencies	Marks (80)	Percentage
1	Remembering and Understanding: Exhibiting memory of previously learned material by recalling facts, terms, basic concepts, and answers; Demonstrating understanding of facts and ideas by organizing, translating, interpreting, giving descriptions and stating main ideas.	24	30%
2	Applying: Solving problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	11	13.25%
3	Formulating, Analysing, Evaluating and Creating: Examining and breaking information into parts by identifying motives or causes; Making inferences and finding evidence to support generalizations; Presenting and defending opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria; Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.	40	50%
4	Map Skill	5	6.25%
	Total	80	100%

CLASS X
GUIDELINES FOR INTERNAL ASSESSMENT: 20 MARKS

Type of Assessment	Description	Marks Allocated
Periodic Assessment	Pen Paper Test.	5
Multiple Assessment	Quiz, debate, role play, viva, group discussion, visual expression, interactive bulletin boards, gallery walks, exit cards, concept maps, peer assessment, Self-assessment etc. through Inter disciplinary project	5
Subject Enrichment Activity	Project Work on Consumer Rights OR Social Issues OR Sustainable Development	5
Portfolio	Classwork, Work done (activities/ assignments) reflections, narrations, journals, etc. Achievements of the student in the subject throughout the year Participation of the student in different activities like heritage India quiz	5

CLASS X PRESCRIBED TEXT BOOKS

S.No.	Subject	Name of the Book	Publisher
1	History	India and the Contemporary World-II	NCERT
2	Political Science	Democratic Politics-II	NCERT
3	Geography	Contemporary India-II	NCERT
4	Economics	Understanding Economic Development	NCERT
5	Disaster Management	Together, towards a safer India- Part III	CBSE

Note: Please procure latest reprinted edition (2024-05) of prescribed NCERT textbooks.

ANNEXURE I

Project Work: Class IX

Project work	10 periods	
Every student must undertake one project on Disaster Management	The students will develop the following competencies:	
Objectives: The main objectives of giving project work on Disaster	Collaboration	
Management to the students are to:	Use analytical skills.Evaluate the situations during disasters.	
 To create awareness in them about different disasters, their consequences and management 		
To prepare them in advance to face such situations	Synthesize the information.	
●To ensure their participation in disaster risk reduction plans	Find creative solutions.	
To enable them to create awareness and preparedness among the	Strategies the order of solutions.	
community.	Use right communication skills.	
• The project work helps in enhancing the Life Skills of the students.		
Various forms of art must be integrated in the project work.		

Guidelines:

To realize the expected objectives, it would be required of the principals / teachers to muster support from various local authorities and organizations like the Disaster Management Authorities, Relief, Rehabilitation and the Disaster Management Departments of the States, Office of the District Magistrate/ Deputy Commissioners, Fire Service, Police, Civil Defence etc. in the area where the schools are located.

The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.

The distribution of marks over different rubrics relating to Project Work is as follows:

S.no	Aspects	Marks
а	Content accuracy, originality and collaborative skills	2
b	Competencies exhibited and Presentation	2
С	Viva	1

- > All documents pertaining to assessment under this activity should be meticulously maintained by the schools.
- ➤ A Summary Report should be prepared highlighting:
 - objectives realized through individual work and group interactions.
 - calendar of activities.
 - innovative ideas generated in the process.
 - list of questions asked in viva voce.
- > It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
- ➤ The Project Report can be handwritten or digital.
- The Project Work needs to enhance cognitive, affective and psychomotor skills of the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, art integrated activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP-2020)
- The Project work can culminate in the form of Power Point Presentation/Exhibition/Skit/albums/files/song and dance or culture show /story telling/debate/panel discussion, paper presentation and whichever is suitable to Visually Impaired Candidates.)
- > The record of the project work (internal assessment) should be kept for a period of three months for verification, if any.

ANNEXURE II

Interdisciplinary Project: Class-IX

Subject and Chapter No	Name of the Chapter	Suggested Teaching Learning Process	Learning Outcomes with Specific Competencies	Time Schedule For Completion
History Chapter IV	Forest Society and Colonialism	Interdisciplinary project Teachers can make use of the pedagogies in facilitating the students in completion of Inter Disciplinary Project Constructivism Inquiry based learning Cooperative learning Research based learning. Experiential learning. Art integration Multiple Assessment: Ex. Surveys / Interviews / Research work/ Observation/ Story based Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /group discussion, /visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-	Compare the forest situations prevailed at pre- colonial, colonial and post- colonial era. Evaluate the growth &role of commercial forestry in different types of Vegetation. Analyse the reasons for rebellions at forest areas of south East-Asia with specification to JAVA. To defend the role of government and the local communities in protecting the forest cover.	The schools to do IDP between the months of April and September at the School under the guidance of teacher. (Carryover of project to home must be strictly avoided)

		assessment/integration of technology etc.		
Geography	Natural Vegetation		To devise ways to	
Chapter 5	and Wildlife		protect the forest	
			vegetation and wildlife	
			in India.	

Guidelines for Inter Disciplinary Project:

It involves combining 2 or more disciplines into one activity-more coherent and integrated. The generally recognized disciplines are economics, History, Geography, Political Science, A sample plan has been enclosed. Kindly access the link given below-

https://docs.google.com/document/d/1668TKkRt80r4-kbjJ Y7zg4mF3Vq1Y9k/edit.

Plan of the project:

A suggestive 10 days' plan given below which you may follow, or you can create on your own, based on the templates provided below.

Process:

• Initial collaboration among students to arrange their roles, areas of integration, area of investigation and analysis, roles of students.

Team leader: Main collaborator
Team members:
Note: Teacher to allocate the roles as per the abilities of the students.

- Final submission based on course deliverables as given in the template below the 10-day plan.
- Assessment Plan: to be done by the teacher clearly mentioning the Rubrics.
- Report, poster and video acknowledgements: reflections & expression of gratitude as given in the template given below

Class IX Interdisciplinary project

10 days suggestive plan

10 periods

Day 1-2: "Colonialism and Forest Society"

Discuss the impact of colonialism on forest societies and explore the concept of forest as a resource in colonialism.

Group project: Research and present a PPT on the colonial forest policy and its impact on forest societies.

Day 3-4: "Rebellion in the Forest"

Analyse the causes and effects of forest-based rebellions in history

Watch the following film Group discuss about forest tribes of your state and the exploitations they face. Refer Annexure VI for Rubrics. https://www.youtube.com/watch?v=N6SR0REa_YA

Day 5-6: Forest Transformations in Java, Tropical Evergreen Forests

Examine the impact of human activity on forests in Java.

Explore how changes in land use, agriculture, and industry have impacted the forests. Students can research the history of forest transformations in Java and their impact on the environment.

Study the transformation of forests in Java, from pre-colonial to post-colonial times.

Compare and contrast the conversion of forest into agricultural land and the need.

Through group discussions find solutions. Present an art integrated project.

Discuss the characteristics of tropical evergreen forests, including their climate, soil, and flora/fauna. Students can research specific examples of tropical evergreen forests and the challenges they face, such as deforestation and climate change.

Group project: watch the video through the link https://www.youtube.com/watch?v=MI0xvHsBigI

Analyse and present the impact of forest transformations on society, economy and environment in Java. Compare and contrast it with India.

Present a PPT of your learnings. Refer Annexure VI for rubrics

Day 7-8: Discuss how colonialism has affected the forest's biodiversity and the survival of indigenous communities living in and around the forest

Group activity: Divide the group into smaller teams and assign them tasks related to identifying the impact of colonialism on different types of forests. For example, one team can research the impact of colonialism on forest fires, while another team can research the impact of colonialism on the survival of indigenous plants and animals. Make the students use cartoon strips to present their findings.

Day 9-10: Make the students to compile all the findings of 8 days' work and present in PPT and through the template given in Annexure V.

ANNEXURE III

Class X - Project Work	10 periods	5 marks		
Every student must undertake one proje Consumer Awareness OR Social		The students will develop the following competencies:		
Development		Collaboration		
Objectives:The overall objective of the project w	ork is to help students gain an	Use analytical skills.		
insight and pragmatic understanding		Evaluate the situations during disasters.		
Social Science disciplines from an in	terdiscipilnary perspective.	Synthesize the information.		
It should also help in enhancing the L	ife Skills of the students.	Find creative solutions.		
Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report.		Strategies the order of solutions		
		Use right communication skills		
If required, students may go out for confirmary and secondary resources to	<u> </u>			
If possible, various forms of art may l work.	pe integrated in the project			

Guidelines:

The distribution of marks over different rubrics relating to Project Work is as follows:

S.no	Rubrics	Marks
а	Content accuracy, originality and collaborative skills	2
b	Competencies exhibited and Presentation	2
С	Viva	1

- 1. The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.
- 2. All documents pertaining to assessment under this activity should be meticulously maintained by the schools.
- 3. A Summary Report should be prepared highlighting:
- objectives realized through individual work and group interactions;
- calendar of activities;
- innovative ideas generated in the process
- list of questions asked in viva voce.
- 4. It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
- 5. The Project Report can be handwritten or digital.
- 6. The Project Work needs to enhance cognitive, affective and psychomotor skills of the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, art integrated activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP-2020)
- 7. Must be done at school only as specific periods are allocated for project work.
- 8. The Project work can culminate in the form of Power Point Presentation/Exhibition/Skit/albums/files/song and dance or culture show /story telling/debate/panel discussion, paper presentation and whichever is suitable to Visually Impaired Candidates.
- 9. Records pertaining to projects (internal assessment) of the students will be maintained for a period of three months from the date of declaration of result for verification at the discretion of Board. Sub judice cases, if any or those involving RTI / Grievances may however be retained beyond three months.

ANNEXURE IV

Interdisciplinary Project: Class X

Subject and Chapter No	Name of the Chapter	Suggested Teaching Learning Process	Learning Outcomes with Specific Competencies	Time Schedule For Completion
History Chapter III Geography Chapter 7	Making of a Global World Lifelines of National Economy	The teachers may use the following pedagogies in facilitating the students in completion of Interdisciplinary Project. 1) Constructivism 2) Inquiry based learning 3) Cooperative learning 4) Learning station 5) Collaborative learning 6) Videos/ Visuals/ documentaries/ movie clippings 7) Carousel technique 8) Art integrated learning 9) Group Discussions Multiple Assessment: Ex. Surveys/ Interviews/ Research work/ Observation/ Story based	 Analyse the implication of globalization for local economies. Discuss how globalization is experienced differently by different social groups. Enumerates how the transportation works as a lifeline of economy. Analyse and infer the impact of roadways and railways on the national economy. Analyses and infers the challenges faced by the roadways and railway sector in India 	The schools to do IDP between the months of April and September at the School under the guidance of teacher. (Carryover of project to home must be strictly avoided)
Economics Chapter 4	Globalization and the Indian Economy	Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /group discussion, /visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-assessment/integration of technology etc.	 Integrate various dimensions of globalisation in terms of cultural / political/ social /economical aspects) Appraise the evolution of Globalisation and the global trends Investigate the factors that facilitated the growth on MNC 's 	

Guidelines:

- It involves combining 2 or more disciplines into one activity-more coherent and integrated. The generally recognized disciplines are economics, History, Geography, Political Science, a sample plan has been enclosed) Kindly access the link given below
- Methodology (A sample interdisciplinary project plan Link has been provided to get an insight about IDP.
- Topic: The Making of a Global World, Globalisation and Life lines of Economy

https://docs.google.com/document/d/1dlwwFeaSrExJHMtkzcEuoq3ehh-7FtHM/edit

Plan of the project:

A suggestive 10 days' plan given below which you may follow or you can create on your own, based on the templates provided below

Process:

Initial collaboration among students to arrange their roles, areas of integration, area of investigation and analysis, roles of students

Class X: 10-day Suggestive plan for Interdisciplinary Project

Day 1: Introduction to the Interdisciplinary Project and Setting the Context:

Brief overview of the project and its objectives to be given by the teachers.

History teacher to Introduce the historical context of the World War II and its aftermath through inquiry method.

Make the students to Group discuss the impact of World War II on the global economy. Teacher to refer annexure III for rubrics)

Day 2: The Great Depression:

Students to watch a video from the link, https://www.youtube.com/watch?v=62DxELjuRec and

https://www.youtube.com/watch?v=gqx2E5qIV9s

and discuss the causes and consequences of the Great Depression and the role of mass production and consumption in the Great Depression. Present a group PPT /report on consequences of the Great Depression on the global economy.

Day 3: India and the Great Depression:

Students to collect material related to India's economic condition during the Great Depression and relate it to the present economic condition of India and US. Students may collect information through a visit to the library.

As a group activity they need to present a collage of their findings. (Refer Annexure VI for Rubrics)

Day 4: Rebuilding the World Economy and Interlinking Production across countries

- Teachers to use Jigsaw method to make the students to sit in groups and to give each group a part of the handout with information about process taken to rebuild economy and how the production across countries got interlinked. Make the groups to compile the information by moving from group to group.
- Make them discuss the post-war recovery efforts and their impact on the global economy
- Study the role of the Bretton Woods Institutions in rebuilding the world economy and present their learnings through Art Integrated Project. Refer Annexure VI for rubrics.

Day 5: The Early Post-War Years: The role of roadways, railways, waterways and airways in building the national economy

- The teacher distributes the Handout 1 given below to the groups and asks them to find answers to the questions posed at the end of Hand out and present it in groups using Café conversations mode. Refer Annexure III for rubrics.
- Study the challenges faced by the world in the early post-war years
- Discuss the efforts made towards decolonization and independence of nations

Day 6: Post war settlement and Bretton Woods institutions

• Make the students read the material given in https://en.wikipedia.org/wiki/Bretton_Woods_system and debate the impact of Bretton Woods institutions in the post war economy. Refer Annexure VI for Rubrics.

Day 7: Decolonization and Independence - The Role of World Trade Organization:

- The students will read the handout 2 given below and present a role play of the support rendered by the World Trade Organisation in building new nations. Refer Annexure VI for rubrics
- Introduction to the World Trade Organization
- Study the role of the WTO in promoting fair trade practices

Day 8: End of Bretton Woods and the Beginning of Globalization:

- The students will read material given in the link
 https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20Bretton%20Woods%20system,-
 https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20Bretton%20Woods%20system,-
 https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20Bretton%20Woods%20system,-
 https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20Bretton%20Woods%20system,-
 https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20President,the%20breakdown%20of%20the%20system,-">https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20President,the%20breakdown%20of%20the%20system,-">https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20President,the%20breakdown%20of%20the%20system,-">https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20President,the%20breakdown%20of%20the%20system,-">https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20President,the%20breakdown%20of%20the%20system,-">https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20President,the%20breakdown%20of%20the%20system,-">https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20President,the%20breakdown%20of%20the%20system,-">https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20U.S.%20Dresident,the%20of%20U.S.%20Dresident,the%20of%20U.S.%20U.S.%20U.S.%20U.S.%20U.S.%20U.S.%20U.S.%20U.S.%20
- Organise an interview with a financial expert/economist/ lecturer/professor. Based on the information they gathered, the students can submit a report on the findings.
- Discuss the reasons for the end of the Bretton Woods system

Day 9: Impact of Globalization in India and role of waterways and airways

https://www.jagranjosh.com/general-knowledge/new-economic-policy-of-1991-objectives-features-and-impacts-1448348633-1

- The students will read the material given in the above link, and design a report on what would have happened to India if this stand wasn't taken and present it as a radio talk show. They will link the role of waterways and airways in the achievement of India in globalisation.
- Study the impact of globalization on the Indian economy
- Discuss the challenges faced by India in the process of globalization

Day 10. Final presentation

Conclude the interdisciplinary project and summarize the key takeaways.

Handout 1 for Day 4 of Inter Disciplinary Project of Class X

Handout Title: The Role of Waterways and Airways in Post-World War II- World and India

Introduction: After the end of World War II, the world faced significant economic, social, and political changes. The role of waterways and airways in shaping the post-war world and India is crucial to understand. In this handout, we will discuss the impact of waterways and airways on the global economy and how it helped India in its development.

Waterways: In the post-World War II era, waterways played a crucial role in the movement of goods and people. The improvement of ports and waterways allowed for more efficient transportation of goods and helped to spur economic growth.

The increased demand for goods and services, combined with the development of shipping technologies, allowed for the expansion of international trade. This helped to boost the world economy and allowed for the growth of industries in many countries, including India.

In India, the development of waterways and ports helped to improve the country's economy. The country's long coastline and several rivers made it an ideal location for the transportation of goods. The growth of ports and waterways in India allowed for the movement of goods from one part of the country to another, helping to spur economic growth and development.

Airways: After World War II, the development of air transportation revolutionized the world's economy. The expansion of air travel allowed for faster and more efficient transportation of goods and people, which helped to boost the world economy.

In India, the growth of airways helped to connect different parts of the country and made it easier for people and goods to move from one place to another. This helped to spur economic growth and development in India.

The growth of air transportation in India also allowed for the expansion of international trade. Indian businesses could now easily access foreign markets, which helped to boost the country's economy.

Conclusion:

The role of waterways and airways in the post-World War II world and India was crucial in shaping the economic and social landscape of these countries. The development of these transportation modes helped to spur economic growth and allowed for the expansion of international trade. Understanding the impact of waterways and airways on the world and India is crucial in understanding the economic and social changes that took place after World War II.

Questions:

- 1. Mention the role of major ports in imports and exports.
- 2. Emergence of Deccan airways changed the entire functionalities of domestic airways> Substantiate the statement
- 3. The waterways and airways contribute to the economic growth of India. Substantiate your answer.

Handout 2 for day 7 of Inter Disciplinary Project of Class X

Handout Title: The Role of the World Trade Organization (WTO) in Building New Nations Post-Colonialization

Introduction: After the end of colonialism, many countries faced significant economic and political challenges as they worked to establish themselves as independent nations. The World Trade Organization (WTO) played a crucial role in helping these countries to rebuild their economies and participate in the global economy. In this handout, we will discuss the role of the WTO in building new nations post-colonialization.

What is the WTO?

The WTO is an international organization that was established in 1995 to promote international trade and help countries participate in the global economy.

The WTO provides a forum for countries to negotiate and enforce international trade agreements, and helps to ensure that trade is conducted in a fair and predictable manner. The organization also provides technical assistance and advice to help countries improve their trade policies and participate in the global economy.

How has the WTO helped new nations post-colonialization?

After colonial rule ended, many countries faced significant economic challenges as they worked to establish themselves as independent nations. The WTO helped these countries to participate in the global economy by providing a forum for trade negotiations and by helping to enforce international trade agreements.

The WTO also provided technical assistance and advice to help these countries improve their trade policies and participate in the global economy. This helped to spur economic growth and development in these countries, and allowed them to become more integrated into the global economy.

By participating in the global economy, new nations post-colonialization were able to expand their markets, attract foreign investment, and improve their economic performance. The WTO played a crucial role in helping these countries to build their economies and establish themselves as stable, independent nations.

Conclusion:

The WTO played a crucial role in building new nations post-colonialization by helping these countries to participate in the global economy. The organization's trade negotiations, enforcement of international trade agreements, and technical assistance helped to spur economic growth and development in these countries. Understanding the role of the WTO in building new nations post-colonialization is important in understanding the economic and political changes that took place after the end of colonial rule.

ANNEXURE V

Presentation Template by the students - Class IX & X

Name of the Student:						
Members of Team:	Members of Team:					
Class : Section:	Date of Submission:					
Topics of IDP:						
Title of the Project:						
Objectives:						
Multiple Assessment:	Multiple Assessment:					
Ex. Surveys / Interviews / Research work/ Observation/ Story based Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /group discussion, /visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-assessment/integration of technology etc.						
Evidences: Photos, Excerpts from Interviews, observations, Videos, Research References, etc.						
Overall presentation: Link of PPT, shared documents, can be digital/handwritten, as per the convenience of the school.						
Acknowledgement:						
References (websites, books, newspaper etc)						
Reflections:						

ANNEXURE VI

Rubrics for IDP

Rubrics	Marks allocated
Research Work	1
Collaboration & Communication	1
Presentation & Content relevance	1
Competencies	2
Total	5



HEALTH AND PHYSICAL EDUCATION

GRADE IX AND X - 2024- 2025



The development of capacities that promote student wellness such as fitness, good health, psycho-social well-being, and sound ethical grounding are also critical for high-quality learning

-National Education Policy 2020

CENTRAL BOARD OF SECONDARY EDUCATION

ACADEMIC UNIT, SHIKSHA SADAN, 17, ROUSE AVENUE NEW DELHI - 110002



HEALTH AND PHYSICAL EDUCATION / IX-X /2024-2025

Health and Physical Education focuses on holistic development, both mental and physical, understanding the importance of physical fitness, health, wellbeing and the factors that contribute to them. Focus of this area is on helping children develop a positive attitude and commitment to lifelong, healthy active living and the capacity to live satisfying, productive lives with the help of health management, indigenous sports, Yoga, NCC, self-defense, fitness and lifestyle choices.

Health and Physical Education focuses on holistic development, both mental and physical, understanding the importance of physical fitness, health, wellbeing and the factors that contribute to them. Focus of this area of curriculum is on helping children develop a positive attitude and commitment to life long, healthy and active living and the capacity to live satisfying, productive lives with the help of health, hygiene and sanitation, work experience, indigenous sports, yoga, NCC, selfdefense, fitness and lifestyle choices. Health and Physical Activities, preferably sports must be given one regular period per day. Students should be provided opportunities to get professionally trained in the area of their interest. Indigenous sports, yoga and NCC must be encouraged in the schools as they develop physical fitness, discipline, sportsmanship combined with patriotism, self-sacrifice and health care. Similarly, Self-defense may be actively taught to students, especially girl students, as it instills confidence and empowers them. The teachers should ensure that the students get opportunities to participate in activities of their choice and help them in identifying and nurturing their talents and gaining confidence. The Physical Education teacher will maintain the record of all the Health and Physical Education activities/competitions that each of the children participate in. The Comprehensive School Health Manuals (four volumes) brought out by CBSE could be referred to for detailed information and the graded activities could be taken up as part of thecurriculum in school.

To address the Health aspect of HPE, qualified doctors should examine children once in a year along with a follow-up session during the year. School should also bring any noticeable disability in a student to the notice of the school counselor and parents. Cases of special needs of students with medical history must be carefully noted and handled accordingly. Detailed information on the Comprehensive Physical and Health Education Curriculum is enclosed with this document.



1. BACKGROUND/ RATIONALE

- 1.1.1 Health and Physical Education is concerned with the total health of the learner and the community. Besides physical health, it includes mental and emotional health of the learners. Health is often a state of physical, mental, emotional, social and spiritual well-being and not merely the absence of disease or infirmity.
- 1.1.2 The aim of Mainstreaming Health and Physical Education is to enable the student to attain an optimum state of health, by incorporating each of the aforementioned aspects.
- 1.1.3 In this respect, it is a truism to say that the practice of healthy living will serve as the foundation for Physical Education. It is envisaged that any effort to promote aesthetic values at the school level will include a natural esteem for physical well-being. The mastery of the body, its powers and qualities, requires knowledge, methodical training and exercise. The skills and capacities need to be developed, the muscles and nerves trained, the senses cultivated and hygienic and proper dietary habits inculcated for this purpose.
- 1.1.4 Therefore, provision has to be made much more systematically than before, in the school curriculum for Health and Physical Education imbued with Life Skills
- 1.1.5 Research has demonstrated that there is a positive correlation between brain development and exercise which also has an impact on cognitive development thus helping to improve academic grades.
- 1.1.6 A comprehensive view of Health and Physical Education includes and encompasses the three areas of Health Education, Physical Education and Yoga as integral to achieving holistic health (physical, mental, intellectual, emotional, social and spiritual). Given the interdisciplinary nature of this subject, it needs to be transacted in innovative ways across the curriculum.
- 1.1.7 The ubiquitous digital presence can be an added resource for the student, teacher educator and the teacher. It provides endless possibilities of resorting to online resources to add value to PE.
- 1.1.8 At the Secondary level acquisition of the habits of healthy living and participation in games and sports and athletics for neuromuscular coordination and physical fitness are the aims which should be taken care of while developing any syllabus of Health and Physical Education.
- 1.1.9 While at the Senior Secondary level, through the integrated PE approach, students will acquire the knowledge, skills, right attitudes and values towards the pursuit of a lifelong physically active and healthy lifestyle.



2. LEARNING OBJECTIVES

- 1.2.1 To develop awareness regarding the importance of physical fitness in individual and social life including Life Skills.
- 1.2.2 To bring the overall awareness of values with regard to personal health and fitness, and to inculcate among students the desired habits and attitudes towards health to raise their health status. *
- 1.2.3 To make the pupils physically, mentally and emotionally fit and to develop suchpersonal and social qualities that will help them to be good human beings. *
- 1.2.4 To take action individually and collectively to protect and promote (i) own health
- (ii) health of family members: and (iii) health of the surrounding community and seeking help when required from available community resources. *
- 1.2.5 To develop interest in exercise, sports and games for self-satisfaction and make it a part of life;
- 1.2.6 To enable an individual to enhance inner qualities self-mastery, discipline, courage, confidence and efficiency. *
- 1.2.7 To enable an individual to display a sense of responsibility, patriotism, self-sacrificeand service to the community *
- 1.2.8 To develop awareness of the importance of self-defense. *
- 1.2.9 To create awareness among children about rules of safety in appropriate hazardous situations to avoid accidents and injuries. To acquaint them with first-aid measures about common sickness and injuries. *
- 1.2.10 To help children learn correct postural habits in standing, walking, running, sitting and other basic movements so as to avoid postural defects and physical deformities. *
- 1.2.11 To help children grow as responsible citizens by inculcating in them certain social and moral values through games, sports, Red Cross, Scouts and Guides etc. *
- 1.2.12 To inculcate values and skills in children in order to promote self-control, concentration, peace and relaxation to avoid the ill effects of stress, strain and fatigue of routine everyday life. *
- 1.2.13 To address the physical, psycho-social needs of CWSN (Children with Special Needs) in an integrated fashion. *
- 1.2.14 To seek in instilling self-worth thus helping students to become confident, assertive, emotionally stable, independent and self-controlled. *
- 1.2.15 To help release of emotional stress, anxiety and tension, leading to a reduced risk of depression. *
- 1.2.16 To help strengthen peer relationships, social bonding, buddy mentorship and team camaraderie.
- 1.2.17 To develop more positive attitude towards challenges, winning and losing, thus preparing students for life and for the workplace. *
- * Values Integrated across HPE

3. COURSE STRUCTURE

Strand	Strand Name	No. of periods	Marks allotted	Teacher/Person Responsible	
1 Games/Sports* 1.Athletics/Swimming 2.Team Games 3.Individual Games 4.Adventure Sports 5.Indigenous Games		90	50	PE Teacher	
2	Health and Fitness 1.Physical Health 2.Social Health 3.Emotional Health	50	25	PE Teacher Yoga Teacher Health and Wellness Coordinator Counselor	
3	SEWA	50	25	SEWA Coordinator [Any Subject]	
4	Health and Activity Card	10		Class Coordinator	
4.1.Physical Check up				Qualified Doctor	
4.2.Posture Evaluation				Physiotherapist/Nurse	
	4.3.Sporting Activities				
4.3.1.Strand 1				PET	
4.3.2.Strand 2				PET/Yoga Teacher/HWC	
4.3.3.Strand 3				SEWA Coordinator [Any teacher]	
Fitness	Tests			PET	
Total		200	100		

The strands conceptualized will be assessed internally through a blended approach of self-assessment and teacher assessment. Students will be assessed in each of the strands on thebasis of evidence such as -direct observation, checklists, and/or use of video. In case of SEWA Projects Students plan and conduct projects and communicate their findings. Evidence in this case can include journals, diaries, essays, laboratory reports, oral presentations and/or the use of video, etc. Maximum marks allotted for each strand are given in table 1.1. SEWA can be assessed on the basis of the rubric developed by the class teacher for the project chosen by the class for that year. The Board will be inspecting records for Strand 1 and 2 such as attendance and participation by all students. Evidence such as Portfolios, Journals, Essays, Video recordings etc. in case of SEWA may be kept ready for scrutiny by the CBSE at any time during the year. Schools are encouraged to place the activities they undertake under various strands on their own website under the 'Sports Corner' which should be updated at regular intervals.

4.PHYSICAL FITNESS TEST BATTERY

Fitness Tests may be conducted as per the guidelines of Khelo India fitness tests and the data may be uploaded on Khelo India App which helps the country in early talent identification for support. The Khelo india app also helps the school to generate individual reports with recommendations for intervention which will help the children in maintaining fitness.

The following components are to be considered for fitness assessment of Grade IX and X.

Battery of Tests - Mandatory	Battery of Tests- Optional*
1.Body Composition (BMI)	1.Flexed Bent Arm Hang
2. Strength-A]Abdominal (Partial Curl-up)	2.Flamingo Balance Test
2.Strength-B]. Muscular Endurance (Push Ups for Boys, Modified Push Ups for Girls)	3.Shuttle Run
3.Flexibility (Sit and Reach Test)	4.Sprint/Dash
4. Cardiovascular Endurance (600 Meter Run/Walk)	5.Standing Vertical Jump
5. Speed (50 mt. Dash)	6.Plate Tap Test
	7.Alternative Hand Wall Toss Test

^{*}Schools targeting higher levels of fitness may also consider the optional fitness tests suggested here. However, Mandatory tests are the minimum tests to be covered by each school every year

Test Descriptions for conducting fitness tests

Schools may refer to the test descriptions prepared by Sports Authority of India for Khelo India fitness assessment as the description is prepared for Indian context. For video tutorials on how to conduct these tests and how to upload the data and generate individual reports schools may visit https://schoolfitness.kheloindia.gov.in/UploadedFiles/SampleData/AdminManual.pdf

5. COURSE CONTENT UNDER STRAND 1

Any one or more games or activities out of Athletics/ Swimming, Team Games, Individual Games , Adventure Sports and indigenous games must be taken up by each student as an individual, or as a class team or as a school team. Once selected the children are supposed to focus on learning the following aspects

- 1. Developing skills and using them to improve the overall success of a performance (DS)
- 2. Using different strategies and tactics to win events (S&T)
- 3. Having the physical fitness and mental capacity needed to carry out the demands of the activity (P&M)
- 4. Knowing what they do well and what they need to practice in order to improve further (IM)

6. ASSESSMENT OF HEALTH AND PHYSICAL EDUCATION

Assessment of Health and Physical Education may be continuously done by collecting information, reflecting on and using that information to review children's progress and to plan future learning experiences. The documented data, after interpretation, should be reflected in the Report Card of the children in the form of grades. In the existing scheme of assessment, these activities will be graded on a 5- point grading scale (A to E) for classes IX-X and will have no descriptive indicators. Work Experience is subsumed in Physical and Health Education. No upscaling of grades will be done. The concerned teacher would make an objective assessment of the level of performance/participation demonstrated by a student throughout a year and finally assign grades. While assessing the children the following aspects may be considered and weightage may be given as per its relevance.

Knowledge-The objective method of setting a paper can be used in which there will be one word answers, true and false and matching.

Skills -The skills that are taught can be tested using the reciprocal method

Application of skills-. Application of skills during game situation in INTRA section matches and for application of skill during INTRA class matches may be considered

While the students are engaged in the core areas like Health and Physical Education, the process is as important as the product. Hence, the assessment in these areas should take account of both aspects. The basis of assessment has been suggested below

Area	Process	Product
Health and Physical Education including Work Experience	Participation, team- spirit, commitment and honest effort	Overall fitness

While filling online data for strand 1, following grades may be filled against HPE: Class IX-X: Grade (A-E) on 5-point scale (A, B, C, D, E)

Grades of SEWA is considered against Work Experience Class IX-X: Grade (A-E) on 5-point scale (A, B, C, D, E) separately

7.SAMPLE QUESTIONS

Sample questions to conduct the assessment of the knowledge aspect are made available. The questions are suggestive only. However, the schools must not make this assessment stressful for children. Questions related to the activity/game selected by the child may be assessed orally as aquiz or with multiple choice questions.

8. DIVYANG [CHILDREN WITH SPECIAL NEEDS]

Teachers are expected to intervene positively to ensure participation of each and every child in the class, including CWSN The students must find unique and creative ways to include CWSN who are their classmates. Though few of the strategies for inclusion have been outlined for some games in boxes attached below, if movement is not possible at all, then aided umpiring or aided cheering should be considered for CWSN. If some learning is possible, let the CWSN learn about the intricacies of the game. If they are interested in art work or music, let them create their own version of the game in art or music or any other form. Students are free to innovate their own mechanisms for inclusion under the guidance of their class teachers. Students must acknowledge that they have a responsibility towards the less privileged, the disadvantaged, the CWSN (Divyang), the society, and the environment. The principle of giving to society has to become second nature to them.

9. PRESCRIBED TEXTBOOKS [RESOURCES]

- 1. Comprehensive School Health Manuals (brought out in four volumes by the Board in 2005, revised in 2010). (Available under Resources)
- 2. Resources for transacting PE by providing linkages across subjects at the Pre Primary, and Primary level are already available in Physical Education Cards brought out for teachers and students. (Available under Resources)
- 3. PE Cards are also available for differently-abled children as PEC ability cards and also for secondary level (SPEC). (Available under Resources)
- 4. Life Skills Manuals for Primary, Middle and Secondary have activities and themes for transaction of PE across classes in age appropriate ways. (Available under Resources)
- 5. Training and Resource Materials-Health and Wellness of School Going Children underthe aegis of School Health Program of Ayushman Bharath [Available under Resources)



Annexure 1 - Health and Activity Card

School Logo CBSE Logo

HEALTH AND ACTIVITY CARD GENERAL INFORMATION

	Student (optional) :
	DATE OF BIRTH:
	BLOODGROUP:
MOTHER'S NAME	
	: WEIGHT
:	HEIGHT:
BLOOD GROUP:	
AADHAR CARD NO.	
:	
FATHER'S NAME	
	: WEIGHT
i	HEIGHT:
BLOOD GROUP:	
AADHAR CARD NO.	
:	
FAMILY MONTHLY I	
ADDRESS	

HEALTH AND PHYSICAL EDUCATION

PHONE NO. (M)	
CWSN, SPECIFY	
SIGNATURE OF PARENTS/GUARDIAN	DATF.

This information should not be shared with any third party/agency in any case. Privacy must be ensured

HEALTH AND ACTIVITY RECORD

Components	Parameters	Class 9th	Class 10th	Class 11th	Class 12th
Vision	RE/ LE				
Ears	Left/ Right				
Teeth Occlusion	Caries/ Tonsils/ Gums				
General Body	Height				
Measurements	Weight				
Circumferences	Hip				
	Waist				
Health Status	Pulse				
	Blood Pressure				
Posture Evaluation	If any: Head Forward/ Sunken Chest/ Round Shoulders/ Kyphosis/ Lordosis/ Abdominal Ptosis/ Body Lean/ Tilted Head/ ShouldersUneven/ Scoliosis/ Flat Feet/ Knock Knees/ Bow Legs				
Sporting Activities (HPE) (For details, see HPE manual available on CBSE website www.cbseacademic.in)	Strand 1: Any one of following: 1. Athletics/ Swimming 2. Team Game 3. Individual Game 4. Adventure Sports				
	Strand 2: Health and Fitness (Mass PT, Yoga, Dance, Calisthenics, Jogging, Cross Country Run, Working outs using weights/gym equipment, Tai- Chi etc)				
	Strand 3: SEWA				

^{*}The circumference measurement of hip and waist of girls must be taken only by lady teachers

HEALTH AND ACTIVITY RECORD

Fitness Components	Fitness Para	ameters	Test Name	What does it Measure	Class 9th	Class 10th	Class 11th	Class 12th
Health Components	Body Composition		ВМІ	Body Mass Index for specific Age and Gender				
	Muscular Strength	Core	Partial Curlup	Abdominal MuscularEndurance				
		Upper Body	Push Up	Muscular Endurance				
	Flexibility		Sit and Reach	Measures the flexibility ofthe lower back and hamstring muscles				
	Endurance		600 Meter Run	Cardiovascular Fitness/ Cardiovascular Endurance				
	Balance	Static Balance	Flamingo Balance Test	Ability to balance successfully on a single leg				
Skill	Agility		Shuttle Run	Test of speed and agility				
Components	Speed		Sprint/ Dash	Determines acceleration and Speed				
	Power		Standing Vertical Jump	Measures the Leg MusclePower				
	Coordination		Plate Tapping	Tests speed and coordination of limb movement				
			Alternative Hand Wall Toss Test	Measures hand-eyecoordination				

Highlighted tests are mandatory. Details regarding how to conduct tests are available at https://schoolfitness.kheloindia.gov.in/UploadedFiles/SampleData/AdminManual.pdf

Mainstreaming Health and Physical Education

Health and Physical Education is concerned with the total health of the learner and the community. Besides physical health, it includes mental and emotional health of the learners. Health is often a state of physical, mental, emotional, social and spiritual well-being and not merely the absence of disease or infirmity

The aim of Mainstreaming Health and Physical Education is to enable the student to attain an optimum state of health, by incorporating each of the aforementioned aspects.

A comprehensive view of Health and Physical Education includes and encompasses the three areas of Health Education, Physical Education and Yoga as integral to achieving holistic health (physical, mental, intellectual, emotional, social and spiritual). Given the interdisciplinary nature of this subject, it needs to be transacted in innovative ways across the curriculum

DISTRIBUTION OF MARKS FOR INTERNAL ASSESSMENT

Strand	Marks	Periods (Approx)	Levels [*]
1. GAMES	fall of the		Up to 25 marks: Learning
A) Athletics/ SwimmingB) Team Games			26-40 marks: Proficiency
c) Individual Games/ Activityd) Adventure Sports	50 marks	90 periods	41-50 marks: Advanced
E) Indigenous Games	- A COMMISSION OF THE PARTY OF		
2. Health and Fitness	25 Marks	50 periods	Up to 12 marks: Learning
			13-20 marks: Proficiency
			21-25 marks: Advanced
3. SEWA	25 Marks	50 periods	Up to 12 marks:
			Learning 13-20 marks:
			Proficiency 21-25
			marks: Advanced
4. Health and Activity Card	No Marks	10 periods	-
Total	100 Marks	200 Periods	3 -

^{*}The grades/levels obtained under the first three Stands will be reflected in the report card

Annexure 2 - SEWA Mentor Observation Form

SCHOOL NAME MENTOR OBSERVATION

Attendance:
Involvement:
Regularity:
Commitment:
Additional
Comments:
(任育計划)

The activity/ project was [Circle appropriate response]

Satisfactorily Completed

Not Satisfactorily completed

Activity/Project Mentor's Signature

Name

Seal of school

Annexure 3 -My SEWA Promise Form

SCHOOL NAME MY SEWA PROMISE FORM

Dear Student,

SEWA is a firm step to prepare you for life. It is a voluntary project experience. You have to complete my SEWA Promise Form and obtain prior approval for the activity /project. Selection of a SEWA activity, development, implementation of the proposal and evaluation of the activity is the responsibility of each student. Signature of the parent indicates review and approval of this proposal.

Student's Name	Class

BRIEF DESCRIPTION OF THE ACTIVITY

Name of Mentor Teacher Student Signature Date	Duration [Days and Time].	Estimated Hours
Student Signature Date Parent Signature :	:	
Student Signature Date Parent Signature Date Annexure 4 -SEWA Hour Log SCHOOL NAME SEWA HOUR LOG		
Parent Signature	:	
Parent Signature		
Parent Signature	Student Signature	<u>:</u>
Annexure 4 -SEWA Hour Log SCHOOL NAME SEWA HOUR LOG	Date	
Annexure 4 -SEWA Hour Log SCHOOL NAME SEWA HOUR LOG	Parent Signature	
SCHOOL NAME SEWA HOUR LOG	•	Date
SEWA HOUR LOG		Annexure 4 -SEWA Hour Log
		SCHOOL NAME
STUDENT NAME:		SEWA HOUR LOG
STUDENT NAME:		
	STUDENT NAME:	
PROJECT ·	DDOISCT .	

_	Value of the second		
Date	Activity	Hours	Mentor's Signature

Annexure 4 -SEWA Hourly Schedule

SCHOOL NAME SEWA HOURLY SCHEDULE

Hour Count	Date and Day	Proposed activity plan
Hour 1		
Hour 2		

Hour 3	
Hour 4	
Hour 5	
Hour 6	

Annexure 5 - SEWA Self-Appraisal Form

SEWA SELF APPRAISAL FORM

The following questions should be addressed at the end of each activity/project. These are guiding questions. Candidates can either answer on this form or write a reflective, continuous text incorporating responses to these questions.

My I	Name
My A	Activity / Project
Му	Commitment Towards the Project/ Activity
-	
_	
-	
This	s Activity/ Project has been a great learning experience because
	, , , , , , , , , , , , , , , , , , , ,

HEALTH AND PHYSICAL EDUCATION

I initially felt that the project could not have achieved its outcomes because
The project has definitely changed me as a person in terms of behavior, attitude and
life skills because
The details of the beneficiary(ies). Any significant comment received from them; please
The challenges I faced and the things I might do differently next time so as to improve?

MATHEMATICS (IX-X) (CODE NO. 041) Session 2024-25

The Syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of the society. The present revised syllabus has been designed in accordance with National Curriculum Framework 2005 and as per guidelines given in the Focus Group on Teaching of Mathematics which is to meet the emerging needs of all categories of students. For motivating the teacher to relate the topics to real life problems and other subject areas, greater emphasis has been laid on applications of various concepts.

The curriculum at Secondary stage primarily aims at enhancing the capacity of students to employ Mathematics in solving day-to-day life problems and studying the subject as a separate discipline. It is expected that students should acquire the ability to solve problems using algebraic methods and apply the knowledge of simple trigonometry to solve problems of height and distances. Carrying out experiments with numbers and forms of geometry, framing hypothesis and verifying these with further observations form inherent part of Mathematics learning at this stage. The proposed curriculum includes the study of number system, algebra, geometry, trigonometry, mensuration, statistics, graphs and coordinate geometry, etc.

The teaching of Mathematics should be imparted through activities which may involve the use of concrete materials, models, patterns, charts, pictures, posters, games, puzzles and experiments.

Objectives

The broad objectives of teaching of Mathematics at secondary stage are to help the learners to:

- consolidate the Mathematical knowledge and skills acquired at the upper primary stage;
- acquire knowledge and understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles and symbols and underlying processes and skills;
- develop mastery of basic algebraic skills;
- develop drawing skills;
- feel the flow of reason while proving a result or solving a problem;
- apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method;
- to develop ability to think, analyze and articulate logically;
- to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases;
- to develop necessary skills to work with modern technological devices and mathematical software's.
- to develop interest in mathematics as a problem-solving tool in various fields for its beautiful structures and patterns, etc.
- to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics;
- to develop interest in the subject by participating in related competitions;
- to acquaint students with different aspects of Mathematics used in daily life;
- to develop an interest in students to study Mathematics as a discipline.

COURSE STRUCTURE CLASS -IX

Units	Unit Name	Marks
1	NUMBER SYSTEMS	10
Ш	ALGEBRA	20
III	COORDINATE GEOMETRY	04
IV	GEOMETRY	27
V	MENSURATION	13
VI	STATISTICS	06
	Total	80

UNIT I: NUMBER SYSTEMS

1. REAL NUMBERS

(18) Periods

- 1. Review of representation of natural numbers, integers, and rational numbers on the number line. Rational numbers as recurring/ terminating decimals. Operations on real numbers.
- 2. Examples of non-recurring/non-terminating decimals. Existence of non-rational numbers (irrational numbers) such as $\sqrt{2}$, $\sqrt{3}$ and their representation on the number line. Explaining that every real number is represented by a unique point on the number line and conversely, viz. every point on the number line represents a unique real number.
- 3. Definition of nth root of a real number.
- 4. Rationalization (with precise meaning) of real numbers of the type $\frac{1}{a+b\sqrt{x}}$ and $\frac{1}{\sqrt{x}+\sqrt{y}}$ (and their combinations) where x and y are natural number and a and b are integers.
- 5. Recall of laws of exponents with integral powers. Rational exponents with positive real bases (to be done by particular cases, allowing learner to arrive at the general laws.)

UNIT II: ALGEBRA

1. POLYNOMIALS (26) Periods

Definition of a polynomial in one variable, with examples and counter examples. Coefficients of a polynomial, terms of a polynomial and zero polynomial. Degree of a polynomial. Constant, linear, quadratic and cubic polynomials. Monomials, binomials, trinomials. Factors and multiples. Zeros of a polynomial. Motivate and State the Remainder Theorem with examples. Statement and proof of the Factor Theorem. Factorization of $ax^2 + bx + c$, $a \ne 0$ where a, b and c are real numbers, and of cubic polynomials using the Factor Theorem.

Recall of algebraic expressions and identities. Verification of identities:

$$(x + y + z)^{2} = x^{2} + y^{2} + z^{2} + 2xy + 2yz + 2zx$$

$$(x \pm y)^{3} = x^{3} \pm y^{3} \pm 3xy (x \pm y)$$

$$x^{3} \pm y^{3} = (x \pm y) (x^{2} \mp xy + y^{2})$$

$$x^{3} + y^{3} + z^{3} - 3xyz = (x + y + z) (x^{2} + y^{2} + z^{2} - xy - yz - zx)$$

and their use in factorization of polynomials.

2. LINEAR EQUATIONS IN TWO VARIABLES

(16) Periods

Recall of linear equations in one variable. Introduction to the equation in two variables. Focus on linear equations of the type ax + by + c=0. Explain that a linear equation in two variables has infinitely many solutions and justify their being written as ordered pairs of real numbers, plotting them and showing that they lie on a line.

UNIT III: COORDINATE GEOMETRY

COORDINATE GEOMETRY

(7) Periods

The Cartesian plane, coordinates of a point, names and terms associated with the coordinate plane, notations.

UNIT IV: GEOMETRY

1. INTRODUCTION TO EUCLID'S GEOMETRY

(7) Periods

History - Geometry in India and Euclid's geometry. Euclid's method of formalizing observed phenomenon into rigorous Mathematics with definitions, common/obvious notions, axioms/postulates and theorems. The five postulates of Euclid. Showing the relationship between axiom and theorem, for example:

(Axiom) 1. Given two distinct points, there exists one and only one line through them. (Theorem) 2. (Prove) Two distinct lines cannot have more than one point in common.

2. LINES AND ANGLES

(15) Periods

- 1. (Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is 180° and the converse.
- 2. (Prove) If two lines intersect, vertically opposite angles are equal.
- 3. (Motivate) Lines which are parallel to a given line are parallel.

3. TRIANGLES (22) Periods

- 1. (Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence).
- 2. (Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence).

- 3. (Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence).
- 4. (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle. (RHS Congruence)
- 5. (Prove) The angles opposite to equal sides of a triangle are equal.
- 6. (Motivate) The sides opposite to equal angles of a triangle are equal.

4. QUADRILATERALS

(13) Periods

- 1. (Prove) The diagonal divides a parallelogram into two congruent triangles.
- 2. (Motivate) In a parallelogram opposite sides are equal, and conversely.
- 3. (Motivate) In a parallelogram opposite angles are equal, and conversely.
- 4. (Motivate) A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and equal.
- 5. (Motivate) In a parallelogram, the diagonals bisect each other and conversely.
- 6. (Motivate) In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and in half of it and (motivate) its converse.

5. CIRCLES (17) Periods

- 1.(Prove) Equal chords of a circle subtend equal angles at the center and (motivate) its converse.
- 2.(Motivate) The perpendicular from the center of a circle to a chord bisects the chord and conversely, the line drawn through the center of a circle to bisect a chord is perpendicular to the chord.
- 3. (Motivate) Equal chords of a circle (or of congruent circles) are equidistant from the center (or their respective centers) and conversely.
- 4.(Prove) The angle subtended by an arc at the center is double the angle subtended by it at any point on the remaining part of the circle.
- 5.(Motivate) Angles in the same segment of a circle are equal.
- 6.(Motivate) If a line segment joining two points subtends equal angle at two other points lying on the same side of the line containing the segment, the four points lie on a circle.
- 7.(Motivate) The sum of either of the pair of the opposite angles of a cyclic quadrilateral is 180° and its converse.

UNIT V: MENSURATION

1. AREAS (5) Periods

Area of a triangle using Heron's formula (without proof)

2. SURFACE AREAS AND VOLUMES

(17) Periods

Surface areas and volumes of spheres (including hemispheres) and right circular cones.

UNIT VI: STATISTICS

STATISTICS (15) Periods

Bar graphs, histograms (with varying base lengths), and frequency polygons.

MATHEMATICS QUESTION PAPER DESIGN CLASS – IX (2024-25)

Time: 3 Hrs. Max. Marks: 80

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
	Analysing: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations		
3	Evaluating: Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	18	22
	Creating:		
	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions		
	Total	80	100

INTERNAL ASSESSMENT	20 MARKS
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

COURSE STRUCTURE CLASS -X

Units	Unit Name	Marks
1	NUMBER SYSTEMS	06
Ш	ALGEBRA	20
III	COORDINATE GEOMETRY	06
IV	GEOMETRY	15
V	TRIGONOMETRY	12
VI	MENSURATION	10
VII	STATISTICS & PROBABILTY	11
	Total	80

UNIT I: NUMBER SYSTEMS

1. REAL NUMBER (15) Periods

Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples, Proofs of irrationality of $\sqrt{2}$, $\sqrt{3}$ $\sqrt{5}$

UNIT II: ALGEBRA

1. POLYNOMIALS (8) Periods

Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials.

2. PAIR OF LINEAR EQUATIONS IN TWO VARIABLES (15) Periods

Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency.

Algebraic conditions for number of solutions. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination. Simple situational problems.

3. QUADRATIC EQUATIONS

(15) Periods

Standard form of a quadratic equation $ax^2 + bx + c = 0$, $(a \ne 0)$. Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots.

Situational problems based on quadratic equations related to day to day activities to be incorporated.

4. ARITHMETIC PROGRESSIONS

(10) Periods

Motivation for studying Arithmetic Progression Derivation of the n^{th} term and sum of the first n terms of A.P. and their application in solving daily life problems.

UNIT III: COORDINATE GEOMETRY

Coordinate Geometry

(15) Periods

Review: Concepts of coordinate geometry, graphs of linear equations. Distance formula. Section formula (internal division).

UNIT IV: GEOMETRY

1. TRIANGLES (15) Periods

Definitions, examples, counter examples of similar triangles.

- 1. (Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio.
- 2. (Motivate) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side.
- 3. (Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.
- 4. (Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar.
- 5. (Motivate) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.

2. CIRCLES (10) Periods

Tangent to a circle at, point of contact

- 1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.
- 2. (Prove) The lengths of tangents drawn from an external point to a circle are equal.

UNIT V: TRIGONOMETRY

1. INTRODUCTION TO TRIGONOMETRY

(10) Periods

Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios whichever are defined at 0° and 90° . Values of the trigonometric ratios of 30° , 45° and 60° . Relationships between the ratios.

2. TRIGONOMETRIC IDENTITIES

(15) Periods

Proof and applications of the identity $sin^2A + cos^2A = 1$. Only simple identities to be given.

3. HEIGHTS AND DISTANCES: Angle of elevation, Angle of Depression. (10)Periods

Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only 30°, 45°, and 60°.

UNIT VI: MENSURATION

1. AREAS RELATED TO CIRCLES

(12) Periods

Area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of 60°, 90° and 120° only.

2. SURFACE AREAS AND VOLUMES

(12) Periods

Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.

UNIT VII: STATISTICS AND PROBABILITY

1. STATISTICS (18) Periods

Mean, median and mode of grouped data (bimodal situation to be avoided).

2. PROBABILITY (10) Periods

Classical definition of probability. Simple problems on finding the probability of an event.

MATHEMATICS-Standard QUESTION PAPER DESIGN CLASS – X (2024-25)

Time: 3 Hours Max. Marks: 80

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	Analysing: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Evaluating: Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	Total	80	100

INTERNAL ASSESSMENT	20 MARKS
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

MATHEMATICS-Basic QUESTION PAPER DESIGN CLASS – X (2024-25)

Time: 3Hours Max. Marks: 80

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	60	75
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	12	15
3	Analysing: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Evaluating: Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	8	10
	Total	80	100

INTERNAL ASSESSMENT	20 MARKS
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

PRESCRIBED BOOKS:

- 1. Mathematics Textbook for class IX NCERT Publication
- 2. Mathematics Textbook for class X NCERT Publication
- 3. Guidelines for Mathematics Laboratory in Schools, class IX CBSE Publication
- 4. Guidelines for Mathematics Laboratory in Schools, class X CBSE Publication
- 5. Laboratory Manual Mathematics, secondary stage NCERT Publication
- 6. Mathematics exemplar problems for class IX, NCERT publication.
- 7. Mathematics exemplar problems for class X, NCERT publication.

SCIENCE

(Code No. 086)

Classes: IX and X (2024-25)

The subject of Science plays an important role in developing well-defined abilities in cognitive, affective and psychomotor domains in children. It augments the spirit of enquiry, creativity, objectivity and aesthetic sensibility.

Upper primary stage demands that a number of opportunities should be provided to the students to engage them with the processes of Science like observing, recording observations, drawing, tabulation, plotting graphs, etc., whereas the secondary stage also expects abstraction and quantitative reasoning to occupy a more central place in the teaching and learning of Science. Thus, the idea of atoms and molecules being the building blocks of matter makes its appearance, as does Newton's law of gravitation.

The present syllabus has been designed around seven broad themes viz. Food; Materials; The World of The Living; How Things Work; Moving Things, People and Ideas; Natural Phenomenon and Natural Resources. Special care has been taken to avoid temptation of adding too many concepts than can be comfortably learnt in the given time frame. No attempt has been made to be comprehensive.

At this stage, while Science is still a common subject, the disciplines of Physics, Chemistry and Biology begin to emerge. The students should be exposed to experiences based on hands on activities as well as modes of reasoning that are typical of the subject.

General Instructions:

- 1. There will be an Annual Examination based on the entire syllabus.
- 2. The Annual Examination will be of 80 marks and 20 marks weightage shall be for Internal Assessment.
- 3. For Internal Assessment:
 - a There will be Periodic Assessment that would include:
 - For 5 marks- Three periodic tests conducted by the school. Average of the best two tests to be taken that will have a weightage of 05 marks towards the final result.
 - For 5 marks- Diverse methods of assessment as per the need of the class dynamics and curriculum transaction. These may include - short tests, oral test, quiz, concept maps, projects, posters, presentations and enquiry based scientific investigations etc. and use rubrics for arguing them objectively. This will also have a weightage of 05 marks towards the final result.
 - b. Practical / Laboratory work should be done throughout the year and the student should maintain record of the same. Practical Assessment should be continuous. There will be weightage of 5 marks towards the final result. All practicals listed in the syllabus must be completed.
 - c Portfolio to be prepared by the student- This would include classwork and other sample of student work and will carry a weightage of 5 marks towards the final results.

COURSE STRUCTURE CLASS IX

(Annual Examination)

Marks: 80

Unit No.	Unit	Marks
I	Matter - Its Nature and Behaviour	25
II	Organization in the Living World	22
III	Motion, Force and Work	27
IV	Food; Food Production	06
	Total	80
	Internal assessment	20
	Grand Total	100

Theme: Materials

Unit I: Matter-Nature and Behaviour

Definition of matter; solid, liquid and gas; characteristics - shape, volume, density; change of statemelting (absorption of heat), freezing, evaporation (cooling by evaporation), condensation, sublimation.

Nature of matter: Elements, compounds and mixtures. Heterogeneous and homogenous mixtures, colloids and suspensions. Physical and chemical changes (excluding separating the components of a mixture).

Particle nature and their basic units: Atoms and molecules, Law of Chemical Combination, Chemical formula of common compounds, Atomic and molecular masses.

Structure of atoms: Electrons, protons and neutrons, Valency, Atomic Number and Mass Number, Isotopes and Isobars.

Theme: The World of the Living

Unit II: Organization in the Living World

Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles and cell inclusions; chloroplast, mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus; nucleus, chromosomes - basic structure, number.

Tissues, Organs, Organ System, Organism:

Structure and functions of animal and plant tissues (only four types of tissues in animals; Meristematic

and Permanent tissues in plants).

Theme: Moving Things, People and Ideas

Unit III: Motion, Force and Work

Motion: Distance and displacement, velocity; uniform and non-uniform motion along a straight line;

acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated

motion, elementary idea of uniform circular motion.

Force and Newton's laws: Force and Motion, Newton's Laws of Motion, Action and Reaction forces,

Inertia of a body, Inertia and mass, Momentum, Force and Acceleration.

Gravitation: Gravitation; Universal Law of Gravitation, Force of Gravitation of the earth (gravity),

Acceleration due to Gravity; Mass and Weight; Free fall.

Floatation: Thrust and Pressure. Archimedes' Principle; Buoyancy.

Work, Energy and Power: Work done by a Force, Energy, power; Kinetic and Potential energy; Law

of conservation of energy (excluding commercial unit of Energy).

Sound: Nature of sound and its propagation in various media, speed of sound, range of hearing in

humans; ultrasound; reflection of sound; echo.

Theme: Food

Unit IV: Food Production

Plant and animal breeding and selection for quality improvement and management; Use of fertilizers

and manures; Protection from pests and diseases; Organic farming.

Note for the Teachers:

1. The chapter Natural Resources (NCERT Chapter 14) will not be assessed in the year-end

examination. However, learners may be assigned to read this chapter and encouraged to

prepare a brief write up on any concept of this chapter in their Portfolio. This may be for

Internal Assessment and credit may be given for Periodic Assessment/Portfolio.

2. The NCERT text books present information in boxes across the book. These help students

to get conceptual clarity. However, the information in these boxes would not be assessed

in the year-end examination.

PRACTICALS

Practicals should be conducted alongside the concepts taught in theory classes.

(LIST OF EXPERIMENTS)

- 1. Preparation of: Unit-I
 - a) a true solution of common salt, sugar and alum
 - b) a suspension of soil, chalk powder and fine sand in water
 - c) a colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of
 - transparency
 - filtration criterion
 - stability
- 2. Preparation of Unit-I
 - a) A mixture
 - b) A compound

using iron filings and sulphur powder and distinguishing between these on the basis of:

- (i) appearance, i.e., homogeneity and heterogeneity
- (ii) behaviour towards a magnet
- (iii) behaviour towards carbon disulphide as a solvent
- (iv) effect of heat
- 3. Perform the following reactions and classify them as physical or chemical changes: Unit-I
 - a) Iron with copper sulphate solution in water
 - b) Burning of magnesium ribbon in air
 - c) Zinc with dilute sulphuric acid
 - d) Heating of copper sulphate crystals
 - e) Sodium sulphate with barium chloride in the form of their solutions in water
- 4. Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams.
 Unit-II
- Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smoothand cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.

 Unit-II
- **6.** Determination of the melting point of ice and the boiling point of water.

Unit-I

7. Verification of the Laws of reflection of sound.

Unit-III

- Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.

 Unit-III
- 9. Establishing the relation between the loss in weight of a solid when fully immersed in Unit-III
 - a) Tap water
 - b) Strongly salty water with the weight of water displaced by it by taking at least two differentsolids.
- Determination of the speed of a pulse propagated through a stretched string/slinky (helical spring).

 Unit-III
- **11.** Verification of the law of conservation of mass in a chemical reaction.

Unit-III

COURSE STRUCTURE CLASS X

(Annual Examination)

Marks: 80

Unit No.	Unit	Marks
I	Chemical Substances-Nature and Behaviour	25
II	World of Living	25
Ш	Natural Phenomena	12
IV	Effects of Current	13
V	Natural Resources	05
	Total	80
	Internal assessment	20
	Grand Total	100

Theme: Materials

Unit I: Chemical Substances - Nature and Behaviour

Chemical reactions: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction.

Acids, bases and salts: Their definitions in terms of furnishing of H+ and OH- ions, General properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleachingpowder, Baking soda, Washing soda and Plaster of Paris.

Metals and nonmetals: Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.

Carbon compounds: Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference between saturated hydro carbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.

Theme: The World of the Living

Unit II: World of Living

Life processes: 'Living Being'. Basic concept of nutrition, respiration, transport and excretion in plants and animals.

Control and co-ordination in animals and plants: Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action: Chemical co-ordination: animal hormones.

Reproduction: Reproduction in animals and plants (asexual and sexual) reproductive health - need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.

Heredity and Evolution: Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination: brief introduction: (topics excluded - evolution; evolution and classification and evolution should not be equated with progress).

Theme: Natural Phenomena
Unit III: Natural Phenomena

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required),magnification. Refraction; Laws of refraction, refractive index.

Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens.

Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses.

Refraction of light through a prism, dispersion of light, scattering of light, applications in dailylife

(excluding colour of the sun at sunrise and sunset).

Theme: How Things Work

Unit IV: Effects of Current

Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors

on which the resistance of a conductor depends. Series combination of resistors, parallel

combination of resistors and its applications in daily life. Heating effect of electric current and its

applications in daily life. Electric power, Interrelation between P, V, I and R.

Magnetic effects of current: Magnetic field, field lines, field due to a current carrying conductor,

field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left

Hand Rule, Direct current. Alternating current: frequency of AC. Advantage of AC over DC.

Domestic electric circuits.

Theme: Natural Resources

Unit V: Natural Resources

Our environment: Eco-system, Environmental problems, Ozone depletion, waste production and

their solutions. Biodegradable and non-biodegradable substances.

Note for the Teachers:

1. The chapter Management of Natural Resources (NCERT Chapter 16) will not be assessed

in the year-end examination. However, learners may be assigned to read this chapter and

encouraged to prepare a brief write up to any concept of this chapter in their Portfolio. This

may be for Internal Assessment and credit may be given Periodic Assessment/Portfolio).

2. The NCERT text books present information in boxes across the book. These help students

to get conceptual clarity. However, the information in these boxes would not be assessed

in the year-end examination.

PRACTICALS

Practical should be conducted alongside the concepts taught in theory classes.

LIST OF EXPERIMENTS

1. A. Finding the pH of the following samples by using pH paper/universal indicator: Unit-I

- Dilute Hydrochloric Acid
- (ii) Dilute NaOH solution
- (iii) Dilute Ethanoic Acid solution
- (iv) Lemon juice
- Water (v)
- Dilute Hydrogen Carbonate solution

 a) Litmus solution (Blue/Red) b) Zinc metal c) Solid sodium carbonate 2. Performing and observing the following reactions and classifying them into: A. Combination reaction B. Decomposition reaction C. Displacement reaction Double displacement reaction (i) Action of water on quicklime (ii) Action of heat on ferrous sulphate crystals (iii) Iron nails kept in copper sulphate solution (iv) Reaction between sodium sulphate and barium chloride solutions 3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions: 	Unit-l
 Performing and observing the following reactions and classifying them into: A. Combination reaction B. Decomposition reaction C. Displacement reaction Double displacement reaction (i) Action of water on quicklime (ii) Action of heat on ferrous sulphate crystals (iii) Iron nails kept in copper sulphate solution (iv) Reaction between sodium sulphate and barium chloride solutions 	
 A. Combination reaction B. Decomposition reaction C. Displacement reaction Double displacement reaction (i) Action of water on quicklime (ii) Action of heat on ferrous sulphate crystals (iii) Iron nails kept in copper sulphate solution (iv) Reaction between sodium sulphate and barium chloride solutions 	Unit-I
 B. Decomposition reaction C. Displacement reaction Double displacement reaction (i) Action of water on quicklime (ii) Action of heat on ferrous sulphate crystals (iii) Iron nails kept in copper sulphate solution (iv) Reaction between sodium sulphate and barium chloride solutions 	Onit-i
C. Displacement reaction D. Double displacement reaction (i) Action of water on quicklime (ii) Action of heat on ferrous sulphate crystals (iii) Iron nails kept in copper sulphate solution (iv) Reaction between sodium sulphate and barium chloride solutions	
D. Double displacement reaction (i) Action of water on quicklime (ii) Action of heat on ferrous sulphate crystals (iii) Iron nails kept in copper sulphate solution (iv) Reaction between sodium sulphate and barium chloride solutions	
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(iv) Reaction between sodium sulphate and barium chloride solutions	
3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:	
	Unit-I
i) ZnSO ₄ (aq)	
ii) FeSO₄(aq)	
iii) CuSO₄(aq)	
iv) Al ₂ (SO ₄) ₃ (aq)	
Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity ba	ased on the
4. Studying the dependence of potential difference (V) across a resistor on the curren	nt (I) passing
through it and determine its resistance. Also plotting a graph between V and I.	Unit-IV
5. Determination of the equivalent resistance of two resistors when connected in	series and
parallel.	Unit-IV
6. Preparing a temporary mount of a leaf peel to show stomata.	Unit- II
7. Experimentally show that carbon dioxide is given out during respiration.	Unit-II
8. Study of the following properties of acetic acid (ethanoic acid):i) Odour	Unit- I
ii) solubility in water	
iii) effect on litmus	
iv) reaction with Sodium Hydrogen Carbonate	
9. Study of the comparative cleaning capacity of a sample of soap in soft and hard wa10. Determination of the focal length of:	ater. Unit-I Unit-III

4.

5.

7.

8.

- i) Concave mirror
- ii) Convex lens by obtaining the image of a distant object.
- 11. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.
 Unit III
- **12.** Studying (a) binary fission in *Amoeba*, and (b) budding in yeast and Hydra with the help of prepared slides. **Unit-II**
- **13.** Tracing the path of the rays of light through a glass prism.

Unit-III

14. Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).

Unit-II

PRESCRIBED BOOKS:

- Science-Textbook for class IX-NCERT Publication
- Science-Text book for class X- NCERT Publication
- Assessment of Practical Skills in Science-Class IX CBSE Publication
- Assessment of Practical Skills in Science- Class X- CBSE Publication
- Laboratory Manual-Science-Class IX, NCERT Publication
- Laboratory Manual-Science-Class X, NCERT Publication
- Exemplar Problems Class IX NCERT Publication
- Exemplar Problems Class X NCERT Publication

Question Paper Design

(Class X)

Subject: Science

Competencies	Total
Demonstrate Knowledge and Understanding	46 %
Application of Knowledge/Concepts	22 %
Formulate, Analyze, Evaluate and Create	32 %
	100%

Note:

- Typology of Questions: VSA including objective type questions, Assertion Reasoning type questions; SA; LA; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- An internal choice of approximately 33% would be provided.

Internal Assessment (20 Marks)

- Periodic Assessment 05 marks + 05 marks
- Subject Enrichment (Practical Work) 05 marks
- **Portfolio** 05 marks

Suggestive verbs for various competencies

- Demonstrate Knowledge and Understanding
- State, name, list, identify, define, suggest, describe, outline, summarize, etc.
- Application of Knowledge/Concepts
- o Calculate, illustrate, show, adapt, explain, distinguish, etc.
- Formulate, Analyze, Evaluate and Create
- o Interpret, analyze, compare, contrast, examine, evaluate, discuss, construct, etc.